Aalto University
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IFRS 15 Revenue from Contracts with Customers

(Major changes and challenges in performance obligation identification)

Master's Thesis
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Abstract of master's thesis

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Abstract

International Accounting Standard Board (IASB) issued IFRS 15 *Revenue from Contracts with Customers* as a joint project with the US national standard-setter Financial Accounting Standard Board (FASB). There was a clear need for a new unified revenue recognition standard to improve global comparability of financial statements. The new high- quality global accounting standard was taken in use beginning on 1 January 2018. The core principle of the new standard is that revenue is recognized in a manner that depicts the transfer of goods and services to a customer.

The new standard requires that all performance obligations associated to the customer contract are identified separately. This study highlights the key changes in the new revenue recognition standard compared to the old IFRS and U.S. GAAP standards. The study also examines how well the separate performance obligations can be identified in customer contracts based on the existing guidance and generic conceptual model. Public forest industry company was chosen as a representative case company for this study due to internationality and monetary value.

Based on the analysed customer contracts conceptual model can help in identifying the contract performance obligations and assist in defining, which of the distinct good or service should be accounted separately. Commonly contracts have multiple goods and services just as with the case company and many of them are capable of beings distinct. However, in the context of a contract only few services are anymore capable of beings distinct. The purpose of the new standard was not to significantly increase the number of performance obligations to be recognized even though some services such as delivery would identify as a distinct service purely based on the guidance. For a practical reason it is considered belonging to the same pattern with the product. Thus, the new standard does leave room for judgement as it is principle based and companies can interpret the guidance differently.

Keywords IFRS 15, Revenue recognition, US GAAP topic 606, Performance obligation identification

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IASB (International Accounting Standard Board) julkaisi IFRS 15 *Myyntituotot asiakassopimuksista* yhteisprojektina Yhdysvaltojen kansallisen standardi asettajan FASB (Financial Accounting Standard Board) kanssa. Uusi standardi vastasi tarpeeseen uuden yhdenmukaisen standardin käytöstä, joka parantaisi tilinpäätösten kansainvälistä vertailtavuutta. Uusi, korkealaatuinen globaali stadardi otettiin käyttöön 1 tammikuuta 2018. Uuden standardin ydin periaate on, että myynti tuloutetaan tavalla, joka kuvaa tavaroiden ja palveluiden siirtymistä asiakkaalle.

Uusi standardi vaatii, että kaikki asiakassopimuksen suoritevelvoitteet tulee eritellä. Tämä työ selvittää uuden myynnin tuloutus standardin pää muutokset verrattuna vanhaan IFRS ja US GAAP standardeihin. Työ tarkastelee myös, kuinka hyvin erilliset suoritevelvoitteet voidaan tunnistaa asiakassopimuksilla nykyisen olemassa olevan ohjeistuksen ja geneerisen käsitteellisen mallin perusteella. Julkinen metsäteollisuusyhtiö on valittu työn edustavaksi yritykseksi kansainvälisen ja rahallisen painoarvon vuoksi.

Analysoitujen asiakassopimusten perusteella geneerinen malli voi auttaa sopimuksen suoritevelvoitteiden tunnistamisessa ja määritettäessä erillisiä suoritevelvoitteita, jotka tulisi tulouttaa erikseen. Yleisesti sopimuksilta löytyy useita suoritevelvoitteita, kuten työn case yrityksellä ja useat niistä ovat kykeneviä olemaan erillisiä. Kuitenkin sopimuksen kontekstin puitteissa enää vain muutama suoritevelvoite voidaan määrittää erilliseksi. Uuden standardin tarkoitus ei ollut merkittävästi lisätä erikseen tuloutettavia suoritevelvoitteita, siitä huolimatta, että jotkut palvelut, kuten toimitus puhtaasti olemassa olevan ohjeistuksen perusteella olisi määritettävissä erilliseksi suoritevelvoitteeksi. Käytännön syistä toimitus luetaan kuitenkin kuuluvan osaksi samaa kaavaa tuotteen kanssa. Uusi standardi jättää tilaa arviolle, koska se on periaate perusteinen ja yritykset voivat tulkita ohjeistusta eri tavalla.

Avainsanat IFRS 15, myynnin tuloutus, suoritevelvoitteiden eriyttäminen

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1. INTRODUCTION

1.1 Background

Globalization of economy have boosted the cross-border flow of capital investing (Fangshu 2015). At the same time over the past years, many accounting and financial reporting frauds have significantly harmed and lowered the trust in global economic system. Enron, WorldCom, HealthSouth, Tyco and Lehman Brothers have resulted in incredible loss, damaged the public trust and started even a worldwide recession (Lail et al. 2017). Not to mention revenue is one of the most important items in financial reporting and at the same time an area of high fraud risk (Morgan & Watson 2015).

Revenue recognition, which many would assume as a straightforward process is in a fact rather complicated. For example, U.S. GAAP has contained over 250 specific pieces of guidance and many of them were conflicting with IFRS rules (Epstein 2014). Furthermore, it has been expensive for companies keeping up with different national accounting systems is and has complicated the financial decision making (Fangshu 2015).

Therefore, there was a clear need for a new unified revenue recognition standard to improve global comparability of financial statements. As one of the most vital part of financial statement IASB and the US standard-setter (FASB) have ambitiously worked together since 2002 to align their revenue standards (European Commission 2015). The U.S. or EU could not simply go and develop own standards separately, because world's major capital markets operate on both continents. Thus, target was to develop unified set of high-quality international accounting standards, that global companies could use both domestic and cross-border financial reporting (Fangshu 2015).

The most significant limitation in using IFRS as a global standard has been the absence of United States. The US does not permit its domestic companies to use IFRS and therefore unifying standards has been the way to decrease the differences. Not surprisingly, the financial crisis has highlighted the importance of this work during the last years. (European Commission 2015)

International Accounting Standard Board (IASB) issued IFRS 15 *Revenue from Contracts with Customers* in May 2014 as a joint project with the US national standard-setter Financial

Accounting Standard Board (FASB) (Deloitte IAS Plus News). IFRS has two primary revenue standards and four revenue focused interpretations (PWC 2015). The new standard replaced the IAS 18 Revenue standard, IAS 11 Construction contracts, IFRIC 13 Customer loyalty programs, IFRIC 15 Agreements for the Construction of Real Estate, IFRIC 18 Transfer of Assets from Customers and SIC-31 Revenue – Barter Transactions Involving Advertising Services (Deloitte IAS Plus). IFRS is principle based and it is generally applied without further guidance or exceptions for specific industries (PWC 2015).

Under US GAAP the new standard is named as Topic 606 and it replaced the old extensive industry specific recognition guidance. US GAAP has been clearly rules based with highly detailed instructions (PWC 2015). The new principle based standard simplifies the revenue recognition, but at the same time leaves more room for interpretation.

The new high- quality global accounting standard was taken in use beginning on 1 January 2018 and it applied to annual reporting from that date onwards. Originally, the new standard was planned to take in use at beginning of 2017, but on April 2015 the IASB decided to defer the effective date by a year, so that the standard would apply at the same time with US GAAP new revenue standard. IFRS 15 is a converged standard with US GAAP, which means that both in Europe and in United States listed companies will report on revenue with same principles in the future. (Deloitte IAS Plus News)

The main objectives of the process have been removing inconsistencies and weaknesses in existing revenue recognition standards by providing clear principles under single revenue recognition model, which improves comparability between industries and countries. In addition, the aim was to simplify the preparation of financial statements by reducing the number of disclosure requirements for U.S. GAAP reporters. (Epstein 2014) However for IFRS reporters the new standard brings more disclosure items.

The core principle of the new standard is that revenue is recognized in a manner that depicts the transfer of goods and services to a customer. Furthermore, the amount received should reflect the consideration the entity expects to be entitled to in exchange for those goods or services. (Sivanantham & Kidd 2014) Some of industries are more impacted by the new standard than others. Accountancy professionals have estimated that the changes have most effect on companies that offer complex bundles of goods and services or provide long-term service contracts. The most impacted industries are expected to be telecom, software development and real estate. For many other businesses, which act on retail sector the new standard will mean only limited change. (Crump 2014)

The new standard requires that all performance obligations associated to the customer contract are identified separately. The company does not necessarily need to review every contract separately, but all different types of contracts need to be reviewed. (Tysiac 2014) The performance obligations are not only limited to the goods or services explicitly stated in the contract, but includes also promises made by general business practices. (IFRS 15, 15)

Therefore, it is crucial to determinate whether goods or services are separate, and it requires careful examination of all promises made to the customer. (Yeaton 2015) For example if there is a significant financing component in the contract under the new IFRS 15 standard it is accounted separately from revenue. (Deloitte Differences vs. IAS 18 2014) This will create extra work in big public companies, who have several different types of customer contracts. Previously under IAS18 there was greater room for judgement when identifying goods and services within a contract. Though this was mainly due to lack of specific guidance. (Deloitte Industry insights for IFRS 15 2014) Thus performance obligation identification is one of the key issues in the new revenue recognition standard and the main focus point in this study.

Research made after the IFRS implementation claims that accounting quality has improvement somewhat after the IFRS adaption. Particularly the use of accounting-based attributes has increased in financial reporting. (Zeghal, Chtourou et al, 2012) European Commission (2015) has also found out in their independent evaluation that improved accounting quality and disclosure have increased transparency of financial statement after IAS adoption. In addition, greater value-relevance of reporting has led to more accurate market expectations and greater comparability between financial statement within and across industries. Capital markets have also gained through higher liquidity, lower cost of capital and increased cross-border transactions. The new IFRS 15 Revenue from contracts with customers replacing two former standards (IAS 18, IAS 11) and four IFRI interpretations on revenue recognition and will continue to improve the transparency and accounting quality.

Revenue recognition is a significant issue in financial reporting fraud. SEC Investigations following the Sarbanes-Oxley Act of 2002 (SOX) found out that improper revenue recognition was the most common form of financial reporting fraud. Their study comprised 227 enforcement actions during the period (1997–2002) and more than 55 percent of those were involved with revenue recognition issues. Revenue had been manipulated for example by reporting of fictitious sales, using improper timing of recognition and improper valuation of revenue. The study clearly proved that there was a need for a better revenue recognition standard. (Sherman et al. 2015)

Also later conducted Research Advisory Board study 2008 based on Accounting and Auditing Enforcement releases (AAERs) filed by the SEC between 1982-2005 found out that revenue recognition schemes were by far the most common occurring in 53% of cases (McAfee & Guth 2014). Other important reason for creating the new standard was to unify the revenue reporting between IFRS and US Generally Accepted Accounting Principles (US GAAP) (IFRS 15 2014, 6).

The previous revenue recognition standard IAS 18 provided limited guidance compared to US GAAP, which included detailed instructions for particular industries or transactions. Though adding so many details was also not completely unproblematic as it sometimes resulted in different accounting for economically similar transactions. Therefore, the International Accounting Standard Board (IASB) and the US national standard-setter, the Financial Accounting Standard Board (FASB) decided to start a joint project, which would clarify the principles for recognising revenue and develop a common revenue standards for IFRS and US GAAP. (IFRS 15 2014, 6)

The new standard will make it easier for investors to compare how much companies from countries around the world earn. It will add detail to IFRS requirements, but US GAAP will become more flexible thanks to more principles-based approach to revenue recognition. (Crump 2014) The new standard will also change the criteria in recognizing revenue at a point in time or over time. For IFRS reporters it will offer more guidance in areas of multiple element arrangements, variable pricing, rights of return, warranties and licensing (Sivanantham & Kidd 2014).

The new revenue standard aims at removing inconsistencies and weaknesses and provides more robust framework for addressing revenue issues. Comparability between entities is also improved and users of financial statements prepared under IFRS will receive more useful information through improved disclosure requirements. In addition, the new standard is expected to reduce the workload of accounting personnel by simplifying the preparation of financial statement. (IFRS 15 2014, 7)

However, all people have not been that optimistic regarding to the new standard. According to McCathy & McCarthy (2014) it is inconclusive whether the quality of the financial statements will be improved. Based on their study even experienced financial managers can interpret the guidance inconsistently and calculate different answers. They concluded that significant implementation guidance would be needed from IASB for managers to interpret the principle based standard consistently. Study from McAffee & Guth (2014) from Columbus State University also argues that US IFRS conversion has potential to increase financial statement fraud. Especially for U.S. GAAP reporters the lack of complex industry-oriented rules has convinced Epstein (2014) that the risk of error and fraud will increase at least during the first years of transaction.

The analysis of Pietra et al. (2013, 71) claims that in case of continental differences the outcome is likely to be closer to European preferences than to American ones. This assumption was based on the fact that any common standard has to “pass” more veto threats on the part of European actors than American ones. On the other hand, Dewing and Russell (2004) claimed in the beginning of IFRS standard creation that the American hegemony is steering too much financial reporting regulation in the European Union.

1.2 Key definitions

The new revenue recognition standard is built around key definitions and most important of them are examined in this chapter. In the new revenue recognition standard control is an important definition as it defines the timing of revenue recognition. An asset is interpreted as transferred to a customer when the customer obtains control of that asset and at that point the revenue can be recognized. Performance obligation on the other hand defines the promises made in the contract and identifiability determines how to separate the performance obligations.

1.2.1 Control

Control is one of the key terms in the new standard. Under IFRS 15 control of an asset refers to the ability to direct the use and obtaining all potential cash flows, so called benefits, from an asset. At the same time control prevents other entities directing or enjoying benefits from the asset. The meaning of control differs depending on the framework, where it is represented. In mathematics control often refers to statistical control variable, which is used to test the relative relationship of the dependent and independent variables. In finance control is seen as an activity, which monitors financial figures and on the other hand in human sciences control is connected to influence on behaviour of other people. Therefore, there is no universal definition for control and the concept can be only examined inside the framework it is represented. In general, the verb control is translated as to exercise restraint or direction over something. Also dominate and command are interpreted as its close synonyms. (Dictionary.com)

IFRS 10 Consolidated Financial Statements forms principles for the presentation and preparation of consolidated financial statements when an entity controls one or more other entities. The control principle in IFRS 10 is based on power over the investment, exposure or rights to variable returns from involvement with investee and the ability to use power over the investee by effecting the amount of returns. In many cases assessment of control is relatively straightforward process, but in more complex cases relevant activities might be directed through contractual arrangements. (Deloitte 2013) Interestingly power term is not used at all in IFRS 15 standard.

IFRS 16 Leases was issued by the IASB in January 2016, and it replaced IAS 17 Leases from 1 January 2019 onwards. The IFRS 16 applies a control model for the identification of leases separating leases and service contracts based on whether there is an identified asset controlled by the customer. (Deloitte 2016)

> *"A contract is, or contains, a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration."* (IFRS 16:9)

1.2.2 Performance obligation

Performance obligation in IFRS 15 is defined as a promise in a contract with a customer to transfer to the customer either distinct good or service or series of distinct goods or services. In contract standards performance of obligation is a condition to close transaction. The clause can be used when there is time between the agreement and the consummation of the bargain, such as in purchase and finance transactions. It requires a party to perform its obligations as a prerequisite for closing the obligation. (ContractStandards 2016) The word performance is used to describe an execution or accomplishment of work. Obligation is defined as something by which person is bound to do certain things and which arises out of a sense of duty or results from custom, low or other (Dictionary.com). Compared to “control” performance obligation has less room for interpretation.

IFRS 16 Leases standard refers to performance obligations as a separate component of a contract. If contract contains a lease the entity is required to account for each lease component within the contract separately. (Deloitte 2016)

1.2.3 Identifiability

In IFRS 15 word identify is repeated multiple times. Already in the first step the entity is required to identify customer contracts and in the second step identifying the performance obligations. Identify can be described also as to establish the identity of something or to serve as a means of identification for (Dictionary.com). IFRS 16 Leases has detailed instructions on identifying a lease contract. Identification of separate lease components in a lease contract is like the performance obligation identification in a revenue contract. In both cases entity is required to identify whether customer or a lessee is contracting for multiple deliverables or for one deliverable. Instead of developing new requirements addressing how to identify separate lease components IASB decided to include similar requirements to those in IFRS 15. (Deloitte 2016)

In the next sub chapter, the new five-step model framework is introduced, which serves as a framework for the new standard. In addition, we will also highlight the major changes through illustrative examples.

1.3 Purpose and implementation of the study

Key impacts for IFRS reporters used to complying the IAS 18 and IAS 11 are in areas of timing of the revenue recognition and identifying the separate performance obligations in the standard, which is expected to cause extensive work inside companies. Firstly, the objective of this study is to highlight the key changes in the new revenue recognition standard compared to the old IFRS and U.S. GAAP standards. Comparison to U.S. GAAP is included in the study, because the new IFRS 15 is a converged standard developed together with FASB and has resemblance to both standard setters. Hence, in order to fully understand the new standard, you need to be aware of the starting point on which the new standard was built on.

Secondly, the study examines how well the new performance obligation separation guidance works with real customer contract of a case company. Requirement for performance obligation separation have cause extensive work inside companies and IFRS published even additional guidance on the subject as users have found the concept difficult to understand and implement. Also based on literature identifying separate performance obligations is clearly found as one of the more complicated areas of the IFRS 15 and therefore the study concentrates on examining this area more comprehensively in practice.

Public forest industry company was chosen as a representative case example for this study due to internationality and monetary value. Forest industry sector accounts for approximately 20 per cent of Finland’s export revenue and from five largest companies by turnover in Finland two belong to the forest industry sector (Finnish Forest Industries Federation). Therefore, a public forest industry company is a descriptive example for the study and of course also an experienced IFRS reporter. As already stated earlier in the study, the new IFRS 15 standard causes more challenges in industries, which receive revenue from services and intangible products, but companies selling physical products such as paper, board, pulp or timber also had to prepare themselves for the change.

The research questions of this study are:

- How well the separate performance obligations can be identified in customer contracts based on the existing guidance?
- Is the current guidance insufficient or unclear in some parts?
- How significant part professional judgement plays in identifying the separate performance obligations?
- Can generic conceptual model help in identifying the separate performance obligations in customer contracts?

The next chapter briefly highlights the former revenue recognition standards IAS 18, IAS 11 and US GAAP revenue recognition concept. Also, key points in standard setting process are presented.

2. REVENUE RECOGNITION UNDER IASB AND U.S. GAAP

2.1 Former revenue recognition standards

Revenue can be described as an income, which arises from the normal business of a company and can include items such as sales, fees, interest, dividends, royalties and rents. As income arises only from an entity's ordinary activities, it excludes borrowing, income from share issuing and amounts collected on behalf of third parties such as tax authorities or agents. (Melville 2014, 210) Revenue is one of the most important items in the financial statement as investors often base their performance assessment on it (FASB, Revenue Recognition).

Recognition is defined as "the process of incorporating in the balance sheet or income statement an item that meets the definition of an element and satisfies the criteria for recognition" (Melville 2014, 21). The difficulty often is to determinate when the revenue should be recognised (Melville 2014, 209). Recognition determinates the accounting period in which the revenues are included and therefore it is one of the most crucial factors when assessing an entity's financial performance and position. (IFRS 15 2014, 6) The timing of revenue recognition is especially important for public companies as it has straight impact on the market valuation of the firm.

Companies compete for capital and the high pressure on capital markets to show performance often increases the temptation to recognize revenue too early. (Sridharan et al. 2003) Research based on Association of Certified Fraud Examiners survey data reveals even that public companies are more likely to have frauds that involve timing differences than private companies (Fleming et al. 2016).

In cash accounting it is simple as revenues are recognized when the cash is received, but in accrual accounting transactions are recognized in the periods in which they occur. Accrual accounting was created to provide better financial performance information by matching expenses with revenues. (Melville 2014, 21) Though for this to happen it needed some kind of rules for the recognition. Accounting standards serve for this purpose, but still it is not always simple to define at which point the revenue arises. Especially services, intangible assets and over time recognized products can cause problems.

2.1.1 IAS 18 – Revenue

According to IAS 18 *"Revenue is the gross inflow of economic benefits during the period arising in the course of the ordinary activities of an entity when those inflows result in increases in equity, other than increases relating to contributions from equity participants."* The standard applies in accounting for revenue arising from sale of goods, rendering of services and the use by others of entity assets yielding interest, royalties and dividends.

The recognition criteria are applied separately to each transaction except if the transaction is linked in such way that the commercial effect cannot be understood without reference to the series of transactions as a whole. Revenue shall be measured at the fair value, which reflects the amount for which an asset could be changed between willing parties in an arm's length transaction. (IFRS IAS 18) In order to recognise revenue from a sale of goods following conditions need to be satisfied:

1) Significant risks are transferred to the buyer
2) Seller holds no managerial involvement or control with the goods
3) Revenue and costs can be measured reliably
4) Seller will most likely receive the economic benefits of the transaction

(Melville 2014, 217)

Revenue from rendering of services shall be recognized by reference to the stage of completion of the transaction at the end of the reporting period. Following conditions need to be satisfied in order to estimate reliably the outcome of a transaction.

1) Revenue and costs can be measured reliably
2) Seller will most likely receive the economic benefits of the transaction
3) Stage of completion of the transaction can be measured reliably

Interest shall be recognised using effective interest method, royalties on an accrual basis and dividends when the shareholder's right to receive payment is established. (IFRS IAS 18)

2.1.2 IAS 11 – Construction Contracts

Construction sector has a major impact to the prosperity and competitiveness of economy, because efficient and modern infrastructure thrives productivity (Bogdan 2014). IAS 11 is the only industry specific guidance for revenue recognition. In construction contracts the date at when the activity begins and the date when the activity is completed usually fall into different accounting periods. Therefore, the main issue in construction contracts is the allocation of contract revenue and contract costs to the right accounting period based on performed construction work.

Contract revenue is measured at the fair value and it includes the initial amount of revenue agreed in the contract and variations in contract work, claims and incentive payments. Contract costs on the other hand comprise all costs, which relate directly and are attributable to contract activity or other costs, which are specifically chargeable to the customer under the terms of the contract. Expenses arising from the ordinary activities include for example cost of sales, wages and depreciation (Bogdan 2014).

Contract costs and revenues are recognized respectively by reference to the stage of completion of the contract activity at the end of reporting period. If the outcome of a construction contract cannot be estimated reliably revenue shall be recognized only to the extent of contract costs incurred and contract costs shall be recognized as an expense in the period in which they are incurred. (IFRS IAS 11) The first percentage of completion method matches the contract revenue and costs based on the stage of completion. The method provides useful information on contract activity and performance during the period (Bogdan 2014). However, to be able to estimate the outcome of a contract reliably the entity needs reliable estimate of total contract revenue (IASPlus IAS11). The second concluded work method on the other hand allows recognition based on incurred costs (Bogdan 2014).

In case it is probable that total contract costs will exceed contract revenue, the expected loss shall be recognised as an expense. (IFRS IAS 11) Losses represent decreases in economic benefits and are usually reported at their net value (Bogdan 2014).

2.1.3 US GAAP

The fundamental former U.S. GAAP revenue recognition concept is defined under Statements of Financial accounting Concepts No. 5, *Recognition and Measurement in Financial Statements of Business Enterprises* (CON 5), *Elements of financial statements* (CON 6) and SEC Staff Accounting Bulleting (SAB) *Revenue Recognition* 104. (Epstein 2015) FASB No.6 states "*Revenues are inflows or other enhancements of assets of an entity or settlements of its liabilities from delivering or producing goods, rendering services, or other activities that constitute the entity's ongoing major or central operations*." Under former U.S. GAAP revenue recognition concept revenue must be earned and it must be realizable before it can be recognized. Revenue is considered earned when the entity has fulfilled all its obligations to the customer and realizable when related assets are convertible to cash or claims to cash. (Epstein 2015)

The choice as to when and how revenue should be recognized has a great impact on the company final net income, so called "bottom line" (Epstein 2014). For example, when a German multinational corporation ThyssenKrupp reconciled its net income in third quarter of 2005 the number changed from €154 million under U.S. GAAP to the €258 million with IFRS. At the same time, the net income attributable to stockholders expanded from €0.31 million to €0.48 million. The differences derived from several accounting items such as differences in definition of discontinued operations, foreign currency derivatives and percentage-of-completion method. (Fangshu 2015)

Nevertheless, according to FASB the former revenue recognition practices focused on the occurrence of critical events instead of concentrating on changes in assets and liabilities. In addition, the GAAP gave insufficient guidance on multiple-element revenue arrangements, or contracts that provide more than one good or service to the customer. It was unclear when contracts should be divided into components and how the revenue should be split between the components. (Epstein 2014)

2.2 Standard setting process

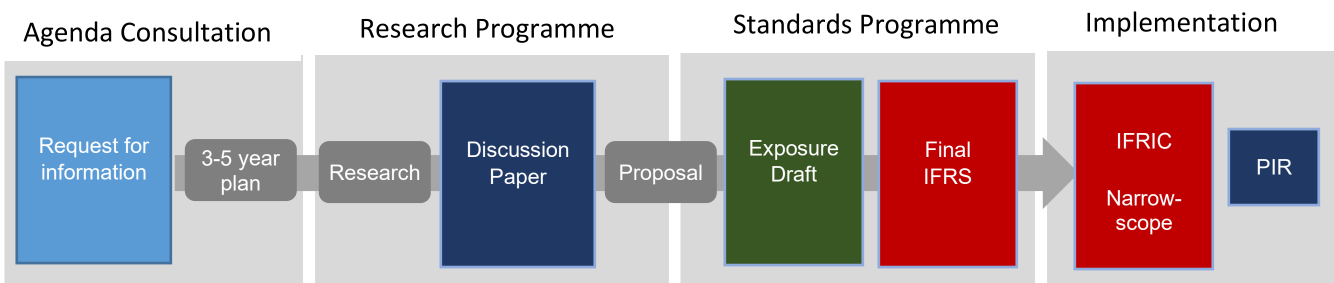
Accounting standards vary between countries and many developed countries have their own standard-setting bodies. Rapid globalization of business during last fifteen years created the need for a single set of accounting standards. IFRS foundation as an independent standard-setting board was created in 2001 in order to improve the efficient functioning of the EU capital markets and the internal market. (Chofaras 2006, 29) Since 2005 all listed companies in EU have prepared their consolidated financial statement accordance with IFRS. Non-listed companies can also choose to report under IFRS, but it is voluntarily. Often companies adopt IFRS, if they anticipate listing at a later stage. Today over one hundred countries accept IFRS, and it is supported by international organization such as G20 and World Bank. (European Commission 2015)

IFRS Standards are developed through an international consultation process called “due process”, which involves people around the world. To these interest groups belong accountants, user of financial statements, business community, stock exchanges, regulatory authorities and academics. During this process normally multiple exposure drafts are composed, and public comments collected. (IFRS Foundation Standard development) Figure 1 shows the phases of the IFRS standard setting process.

The process starts with identifying and reviewing all the issues associated with the topic and examining how IASB’s conceptual framework applies to them. The Agenda consultation phase includes also study of national accounting requirements and consultation both with the Trustees and the Advisory Council. In the research programme phase discussion document is published for public comment. IASB considers carefully all received comments during the stated comment period. Based on the research the IASB publishes an exposure draft for public comment and again the collected comments are taking into consideration. (Melville 2014, 9)

Exposure draft is the IASB’s main tool for consulting the public and it sets out specific proposal in the form of a proposed standard, unlike discussion paper, which is just a compulsory comprehensive overview of the issue. (IFRS Foundation Standard development) When at least ten of the sixteen members of IASB are satisfied with the new standard it is finally published. (Melville 2014, 9) International financial reporting interpretations committee issues IFRIC interpretations after IASB has approved the standard. As a final step a Post-implementation Review (PIR) is conducted of each new Standard or major adjustment. The PIR usually starts after the new requirement has been in use internationally for two years. (IFRS Foundation Standard development)

Figure 1. IFRS Standard setting process



Source: IFRS How we develop IFRS

Development of a new IFRS standard normally starts years before the effective date and during this time the preliminary standard is modified many times (IFRS Foundation). Preparation of the new revenue recognition standard has as well been a long process as the preparation began already in 2002 and the first discussion paper was published in 2008 (Deloitte IAS Plus). First exposure drafts were released in 2010 and 2011 and the final standard issued in May 2014. However, IASB has issued clarifications to the standard after several implementation issues were identified in the Revenue Recognition Transition Resource Group. The latest clarification concerning performance obligation identification, separation between principal and agent and licencing revenue was issued in April 2016. (IFRS Current Projects)

IFRS standards must be also endorsed by local legislators before they can be taken in use. The IFRS 15 was endorsed by EU legislator EFRAG (European Financial Reporting Advisory Group) in September 2016 and the extra clarifications published in April 2016 was endorsed during first half of 2017. (EFRAG Endorsement Status Report 2016)

During this kind of a long evolving project, it is important for a company to reserve enough internal resources and monitor closely how the standard preparation advances. During the process, the new standard often comes more explicit and even small modifications might have material impacts in a company. Also, large audit firms publish great amounts of interpretive guidance, which helps companies to keep them up to date (Taub 2015). According to interviewed forest industry accounting specialist implementation of a new standard inside global company employs dozens of people and during the process the framework changes.

The next chapter presents the new IFRS five-step model framework and FASB topic 606, which is converged standard with IFRS 15.

3. NEW STANDARDS IFRS 15 AND FASB TOPIC 606

3.1 IFRS 15 five-step model framework

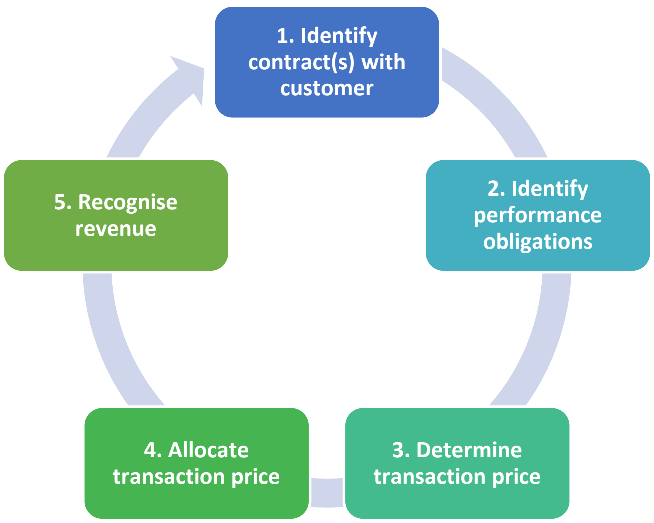
This chapter describes how the new standard is build and how it should be interpreted. In the end we will also clarify the main differences between IAS 18, IAS 11, US GAAP and the new IFRS 15 Revenue from Contracts with Customers. Previously IFRSs allowed clearly more room for judgement in devising and applying revenue recognition policies and practices compared to IFRS 15, which is more prescriptive in many areas. (Deloitte Industry insight 2014) The new standard provides a single, comprehensive accounting model by providing consistent principles for revenue recognition. According to IFRS (IFRS 15 2014) the new principles help defining the nature, amount, timing and uncertainty of reported revenue from customer contract. The recognised revenue should represent as fair as possible the expected income from the exchange of goods or services. (IFRS 15 2014, 8) New to this standard is the contractual approach to recognition, more detailed disclosure requirements and "provisions pertaining to the application of present value". (Bloom & Kamm 2014) In order to reach this target a new five step model was created. The model guides when and at which amount the revenue should be recognized. (Tuomala & Jalkanen, 2014)

According to Crump (2014) "the core principle of the new common global standard is for companies to recognise revenues in a way that shows the transfer of goods and services to customers, reflecting the payment to which the company expects to be entitled". The new standard is applied to all contracts with customers except those related to leases, insurance contracts, financial instruments, guarantees and contractual rights or obligations. (Bloom & Kamm 2014)

To comply with the details every company must follow five step model shown in figure 2. The process starts with identifying contracts with customers and specifying each distinctive performance obligation in the contract. Third phase is to determine transaction price and after that allocating the transaction price separately to each performance obligation. At the last phase, the revenue is recognized at one point in time or over time.

To better illustrate every step in the process Foxtrot retail company is used as an example. The company sells consumer appliances and services to the general public. It most popular promotion is a laptop computer including three-year service contract for 1000€. The service contract includes extended product warranty, antivirus program and hardware maintenance. Customer pays the entire amount when buying the product. Foxtrot also sells service contracts to people, which buy their laptops elsewhere. (Dyson 2015)

Figure 2 IFRS 15 Five-Step Model Framework



Source: Tuomala & Jalkanen-Steiner 2014

3.1.1 Step 1: Identifying the contract(s) with a customer

The new IFRS 15 concerns only customer contracts, thus identifying customer contracts is the first step in the process. Customer is a party that has contracted with an entity to obtain output of the entity's ordinary activities. Contract liability on the other hand is an entity's obligation to transfer goods or services that are an output of the entity's ordinary activities to a customer in exchange for consideration. Hence, contract can be described as an agreement between two or more parties that creates enforceable rights and obligations A contract can be written, oral or implied by customer business practices. In the beginning of the project, it might be challenging even locating the customer contracts in foreign locations let alone understanding their terms.

(Morgan & Watson 2015) In the forest industry sector the first step identifying customer contract was not expected to have a big impact as most likely the current contracts were valid.

For contract to be approved as customer contract it must meet all the following criteria: 1) the contract has commercial value, 2) all the parties to the contract have approved the contract and are committed to perform their respective obligations, 3) each party's rights are identifiable regarding the goods or services to be transferred, 4) payment terms are identifiable, 5) it is probable that the entity will be compensated from transferring the goods or services to the customer. (IFRS 15, 11) Hence arrangements or partnership such as research and development partnership are generally excluded. Also, a contract involving transfer of an asset that is not an output of the entity's ordinary activities does not generally qualify as a customer contract. (Yeaton 2015) In some cases several contracts might have to be combined and handled as a single contract. (IFRS 15 2014, 7).

Under IAS 18 all revenue rising from the following transactions were recognized: 1) sale of goods, 2) the rendering of services, 3) the use by others of entity assets yielding interest, royalties and dividends. Compared to IAS 18 the new standard IFRS 15 only includes revenue, which arises from customer contracts. Therefore, for example interest and dividend income, which were before part of IAS 18 are recognized now under financial instruments standard. However, this change is not expected to bring any major changes to interest income recognition. (Deloitte Differences vs. IAS 18 2014)

For our example company Foxtrot selling the laptop has commercial value and it is approved by all parties as it is immediately delivered to the customer. The signed contract specifies the types of services to be provided. Therefore, the contract most likely will be legally enforceable and recognized as a customer contract. (Dyson 2015) The first step is also not expected to have a big impact in the forest industry sector as most likely the current contracts are valid.

3.1.2 Step 2: Identifying the performance obligations

After customer contract are identified the next step is to identify the performance obligations associated to the contract. Identifying performance obligations is a key step in applying the new standard, because it determines the unit of account for revenue recognition. (KPMG New on the

Horizon 2015) This part will most likely bring most work in entities. The company does not necessarily need to review every contract separately, but all different types of contracts need to be reviewed (Tysiac 2014). This was estimated as the most laborious part also in the case company as all the present contracts must be verified. Previously under IAS18 there was greater room for judgement when identifying goods and services within a contract. Though this was mainly due to lack of specific guidance. (Deloitte Industry insights for IFRS 15 2014)

IFRS 15 defines performance obligations as promises to transfer distinct goods or services to a customer and all these obligations will be recognized separately. However, the performance obligations are not only limited to the goods or services explicitly stated in the contract, but includes also promises made by general business practices or published policies. (IFRS 15, 15) It is crucial to determinate whether goods or services are separate, and it requires careful examination of all promises made to the customer in order to identify all the deliverables. (Yeaton 2015)

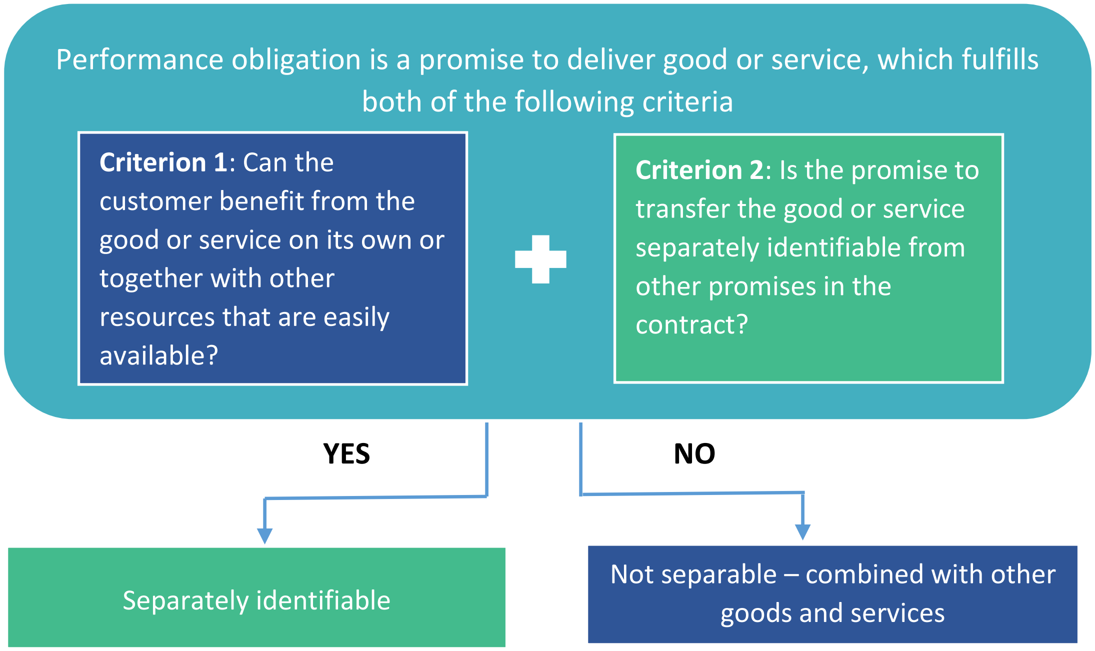
Some items, which before has been considered as marketing activities such as “free” handset provided by telecommunication entities or customer loyalty points provided by supermarkets and airlines are under IFRS 15 to be identified as separate promised good or service. IFRS 15.26(g) notes that a promise to a customer may also include granting rights to goods or services to be provided in the future. (EY 2016, 59) These kinds of promises exist commonly for example in automotive distribution network, but in forest industry it is also common to negotiate quota of the next year production with big customers. In some products there can be only few big customers, which have significant negotiation power and in order to secure supply long term contacts are made.

Two-step approach illustrated in figure 3 is provided for identification of distinct goods and services. First the company must decide whether the goods or services are capable of being distinct on their own. In other words, can the customer use the product or service alone. In case the answer is yes then the next step is to determinate whether the goods or services are distinct within the context of the current contract. If the answer is yes to both steps, then each distinct good or service should be accounted separately. (Yeaton 2015) In case distinct goods or services cannot be identified, entities should combine goods or services until they identify a bundle of goods or services that is distinct (Deloitte Implementing IFRS 15 2015). Thus, at the first step the contract is examined from the customer point of view and in the second step from the company perspective. This step will require a great deal of judgement and may present significant implementation challenges for entities (Yeaton 2015). For example, if there is a significant financing component in the contract under the new IFRS 15 standard it is accounted separately from revenue. This applies both for advance payments as credits in case the period between payment and transfer of goods or services will be more than one year. (Deloitte Differences vs. IAS 18 2014)

Whether a promise to transfer a good or service is separable from other promises in the contract depends also on the facts and circumstances specific to each scenario. Promised good or service is often not separable if one part is used as an input to produce the combined output or the part significantly modifies or customises another good or service. Also, highly dependent goods or services can be combined. (Deloitte Implementing IFRS 15 2015) For example if an entity enters into a contract to build a hospital for a customer the provided goods and services are not distinct within the context of the contract. This is, because the entity provides a significant service of integrating the goods and services (the inputs) to build a hospital for which the customer has contracted. Hence the goods and services are used as inputs to create the combined output. (IFRS 15 Illustrative Example 10)

At this stage, our example company Foxtrot identifies two performance obligations. First there is the delivery of the laptop and secondly the promise to provide specific supporting services. (Dyson 2015) The customer can benefit from the laptop and service also alone as the service could be used as well with an old computer. For Foxtrot the service is also identifiable from the laptop as it is sold separately as well. In case the specific supporting services would significantly modify and customize the use of the laptop it could be interpreted as combined output, where the laptop and supporting services are used as inputs. Even if the customizing supporting services could be provided by other entities the supporting service is not separately identifiable within the context of the contract. (IFRS 15 Illustrative Example 11)

Figure 3 Identification of Contract Performance Obligations



Source: Tuomala & Jalkanen-Steiner 2014

3.1.3 Step 3: Determining the transaction price

In the third step the company needs to determine the transaction price for each contract. "The transaction price is the amount of consideration to which an entity expects to be entitled in exchange for transferring promised goods or services to a customer." (IFRS 15, 21) For some companies determining what customers pay for each element of goods and services sold as a packages may present real logistical challenge, which will involve assessing the impact of the standard on all the company's revenue streams (Crump 2014). The transaction price can be a fixed or variable amount, which includes discounts, rebated, incentives or other similar items. (Yeaton 2015) Compared to previous standard IFRS 15 has clearly more specific requirements in respect of variable consideration. (Deloitte Industry insights for IFRS 15 2014) The transaction price may be explicitly stated in the contract or it may be based on customary business practices. If a promise made in contract includes a variable amount the company is required to estimate it using either the expected value method or the most likely amount method. (Yeaton 2015)

For example, company sells 1000 DVDs to a retailer for 20€ each, but the retailer can return any unsold DVDs within 30 days for a full refund. The cost of each DVD is 10€ and according to company's experience 100 DVDs will be returned. Following the most likely amount the company would recognize revenue of 18000€ and refund liability of 2000€. In addition, the company would recognise cost of goods sold of 9000€ and an asset of 1000€. (Jones & Pagach 2013) Volume discounts regularly used also in forest industry sales contract should be considered in revenue recognition. For example, if a customer receives a discount based on the number of units purchased during a year the discounted price should be recognized evenly between the quarters if customer is expected to reach the discount volume. (FASB Topic 606 No- 2014-09)

In the expected value method, a company building a new playground for a school can be used as an example. In their customer contract it is agreed that the final price depends on how quick they can finish the new playground. If the project is ready two months before the final deadline, they receive 2 000€ bonus. Finishing the project one moth advanced would grant 1 000€ bonus. Below the Table 1 calculates the offered performance bonuses and probabilities:

Table 1 Performance bonus calculation

Time	***Bonus***	***Probability***	***Total***
on deadline	0€	50%	0€
1 month advanced	1000€	30%	300€
2 months advanced	2000€	20%	400€
	Total	**100%**	**700€**

The expected amount of the bonus would be calculated based on the probability-weighted average. In this example the probability-weighted average gives 700€ as expected bonus, which is included in the transaction price.

Before under IAS 11 recognition of contingent consideration was permitted, if the amount of revenue could be reliably measured and the economic benefits associated with the transaction would flow to the entity. Some entities however found it simpler just to defer recognition until the contingency was resolved. Other entities might have looked for instructions from US GAAP, which had various requirements for recognising variable consideration in different standards.

Vendor specific objective evidence (VSOE), third party evidence (TPE) or estimated selling price could be used. IFRS 15 however has now common guidelines on variable consideration, which are applicable to all types of variable consideration in all transactions. Consequently, depending on the company previous practices the timing of the revenue recognition might change. Some entities may recognise revenue sooner under the new standard and others may recognise revenue later. (EY 2016, 127)

What about our laptop producer Foxtrot? For Foxtrot this step is straightforward as the transaction price 1 000€ is the amount to which it expects to be entitled in exchange for transferring the laptop and the services to the customer. The transaction price is fixed, and it includes delivery and access to supporting services. All consideration is received up front and the offer is non-refundable. (Dyson 2015)

3.1.4 Step 4: Transaction price allocation to the performance obligations

The fourth step requires allocation of the transaction price to each performance obligation separately based on their relative stand-alone selling prices. If a stand-alone selling price doesn't exist, a company must estimate the individual selling price using all readily available information. (Jones & Pagach 2013) The new standard is clearly more specific in allocation of the transaction price than IAS 18, which lacked specific guidance on this area. For example, some companies, which offer free servicing period to a customer as part of the sale, the new standard may significantly change their routines in revenue recognition. (Deloitte Industry insights for IFRS 15 2014)

For estimating the individual selling price company can use *Adjusted market assessment approach, Expected cost plus a margin approach or Residual approach (IFRS 15, 27)*. In the adjusted market assessment approach company could estimate the amount a customer would be willing to pay for the goods or services if they were offered separately on the market. Alternatively, in the expected costs plus margin approach the company could forecast the cost of satisfying the performance obligation and then add an appropriate margin on top of the costs. (Yeaton 2015) Residual approach may only be used in two situations. First in case company's stand-alone selling price is not evident, because the same goods or service is sold significantly different prices to different customers at or near the same time. Second if the company hasn't yet established a price for the item and previously it hasn't been sold on a stand-alone basis. If one of these two criteria are met company estimates stand-alone selling price of one performance obligation by deducting the sum of the observable stand-alone selling prices of other goods or services from the total transaction price. In case the transaction price changes after contract inception the company should allocate the changes based upon the stand-alone selling prices in the beginning of the contract. (Dyson 2015)

For Foxtrot standalone selling price is the price which it sells the laptop and service separately. Laptop is sold for 800€ and the three-year service contract for 300€, a total stand-alone price of 1 100€. As the total stand-alone selling price is more than the combined sales price 1 000€ Foxtrot must allocate discounts to the stand-alone prices. With this method Laptop transaction price will be 727€ and the service part revenue is 273€.

$$Laptop = \left(\frac{800}{1100}\right) * 1000 = 727€ \quad Service = \left(\frac{300}{1100}\right) * 1000 = 273€$$

3.1.5 Step 5: Recognising revenue when a performance obligation is satisfied

The fifth step points out that revenue is recognised when performance obligation is satisfied by delivering the goods or services to the customer. IFRS 15 introduces a new way for determining whether revenue should be recognised over time or at one point in time. Under IAS 18 the timing of revenue recognition is based on transfer of risks and rewards, but IFRS 15 emphasises when the control of goods has been transferred to the customer. For some companies this might change the timing of revenue recognition. (Deloitte 2014 Industry insights for IFRS 15)

For example, some companies deliver goods on the basis that the goods are passed to the customer at the point of shipment, even though they might compensate customer for loss or damage during the carriage. Under IAS 18, which emphasizes transfer of risk, the revenue would be recognized at the point of delivery after the shipment. IFRS 15 though requires assessing whether control passes to the customer at the point of shipment or at the point of delivery. Result of this revenue recognition time may change. In case revenue is recognized at the point of shipment part of the transaction price could be allocated as "shipping and risk coverage" service.

That part of the revenue would be recognized after providing the service. (Deloitte Differences vs. IAS 18 2014)

Under IFRS 15 control of a good or service is transferred over time if one of the following criteria are met: 1) the customer simultaneously receives and consumes the benefits as the company performs, 2) the company's performance creates or enhances an asset that the customer controls, 3) the company's performance does not create an asset with an alternative use and the company has a right to payment for performance completed to date. (Jones & Pagach 2013)

If a performance obligation is not satisfied over time, company satisfies it at a one point in time. Transfer of control may be indicated when the product is delivered to a customer, seller obtains the right to the payment or significant risk and rewards of ownership is transferred to the buyer. (Jones & Pagach 2013) Though here it is important to remember that any agreement to repurchase the asset affects the evaluation of control transfer. For example, if Foxtrot has the obligation or right to repurchase the laptop at the customer's request control is not transferred at the date of the sale. (Dyson 2015).

As the offer is non-refundable Foxtrot recognizes the revenue related to the laptop at one point in time on the date of transfer and the three-year service part over time as the customer simultaneously receives and consumes the benefits. At the date of the sale Foxtrot would debit the 1000€ received in cash, but from that just 727€ would be recognized as revenue. The service part 273€ would be recognized as a contract liability. (Dyson 2015)

As just described IFRS 15 requires entities to assess whether control passes to the customer at the point of shipment or at the point of final delivery. In case revenue is recognized at the point of shipment distinct shipping and coverage service may also be identified. (Deloitte Implementing IFRS 15) Material impacts are expected to stay moderate in the forest industry financial reporting, partly because of the internationally recognized standard terms INCOTERMS (International Commercial Term), which are used in sales contracts.

The Incoterms contain clear instructions when the responsibilities and obligations shift from the seller to buyer. Moreover, they define who takes care of insurance, taxes or duties, where the goods should be transported to and who is responsible for the goods at each step during transportation. (Incoterms 2015) Thus it can be concluded that the step 5 *Satisfactions of performance obligation* is specified already in the incoterm. For example, in EXW ('Ex Work') term the buyer collects the goods from seller's premises and the buyer has the control as soon as the seller has made the goods available for the buyer. On the other hand, if DDP ('Delivered Duty Paid') term is used the seller is responsible for delivering the goods to the customer including all costs involved. (Incoterms 2015) In both cases there are clear instructions when the company transfers the control of a promised good to a customer in other words satisfies the performance obligations.

3.2 FASB Topic 606

The US Financial Accounting Standard Board (FASB) issued Topic 606 Revenue from Contracts with Customers on May 2014 as a converged standard with IFRS 15. The new standard replaced all old revenue recognition guidance including industry specific guidance. This has essentially resulted to global convergence for revenue recognition. (Sherman et. al. 2015) However the new standard has been in focus of intense interpretation and therefore IASB and FASB ended up publishing clarifications on the key areas of the new revenue standard. The changes proposed by FASB has been more extensive and detailed resulting in non-converged language between the IFRS and US GAAP, which might lead to unintended outcomes. (KPMG New on the Horizon 2015)

FASB wanted to reduce the work and costs in identifying performance obligations by allowing companies to determinate the materiality of the goods and services. Thus, a company does not have to identify goods or services to be transferred to the customer that are immaterial in the context of the contract. IASB does not provide guidance based on materiality for IFRS reporters. The new materiality update is however not expected to cause big divergence, because it clarifies, but does not change the revenue standard's guidance.

Second change concerns shipping and handling activities. Under FASB companies can elect to account for shipping or handling activities occurring after control has passed to the customer as a fulfilment cost rather than as a revenue element. IASB doesn't provide similar policy choice, and this might result in divergence as IFRS reporters will need to determine whether shipping and handling after control has transferred is a performance obligation. (Deloitte FASB clarifies guidance 2016)

3.3 How to put in practice in an entity

Choosing the best transition method was one of the most important parts in the process of implementing the new revenue recognition standard. Early adoption of the new standard was allowed for companies, but the effective date was 1 January 2018. (IFRS IASB Press Releases 2015) Companies had three following options when transiting to the new guidance: 1) full retrospective approach, 2) modified retrospective approach, 3) cumulative effect approach. (Tuomala & Jalkanen-Steiner 2014)

Full retrospective approach required adjusting retained earnings, equity, or net assets for all comparative years according to the IFRS 15 standards. In the modified approach retrospective approach is the starting point, but it allows some liberations. First contracts beginning and ending within the same accounting period do not need to be corrected. Second transaction price of completion date can be used in revenue contracts containing variable consideration. Cumulative effect approach gives even more liberation as just the opening balance of retained earnings is adjusted in the year of adoption for the cumulative effects of all contracts that are not completed. (Jones & Pagach 2013)

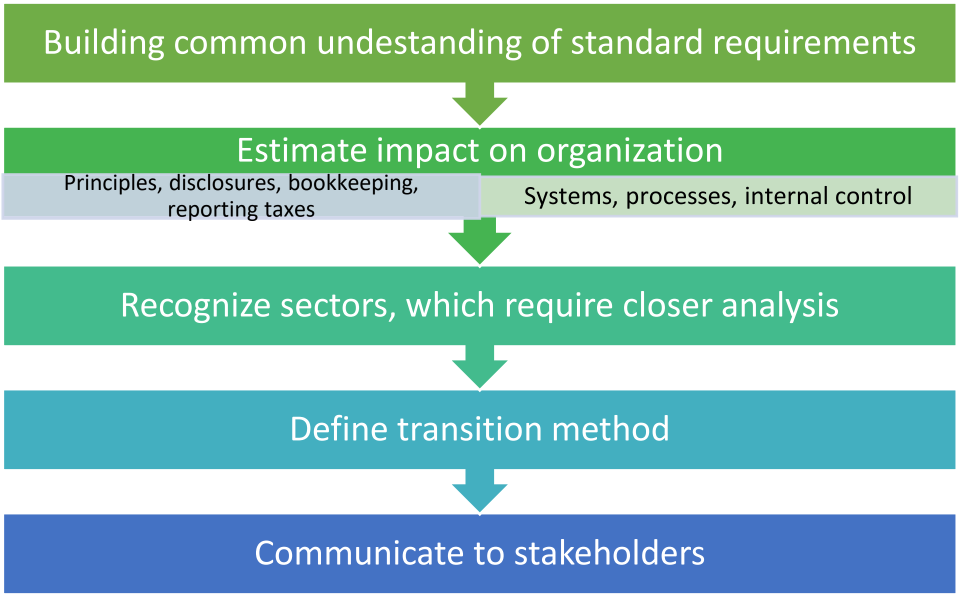
Full retrospective method was most labour intensive as it required restating two comparative years prior to the implementation date. Though some companies preferred to use it as it gives investors better understanding of trends and easier comparability. For the full retrospective method companies needed to have systems ready to capture the data in the beginning of 2016. (Tysiac 2014). In general, publicly traded companies were largely expected to choose retrospective method as investors prefer easy comparability. (Whitehouse 2014)

The new rules were expected to require major changes to companies' systems and processes to collect all the necessary data. Deloitte's global IFRS technical leader stated, that the new standard might have significant effect on key performance indicator reporting and internal systems. In any case companies should not underestimate the possible impact of the new standard to revenue profile and the potential need for changing systems, processes and disclosures. (Crump 2014)

Tuomala and Jalkanen-Steiner (2014) have created a practical model shown in figure 4, which describes how company should proceed when taking the new standard in use. The first step is to build a common understanding of the standard requirements inside the company to understand the main differences between the old and new revenue recognition standard. On the second phase the company should estimate the overall impact in the organization. Processes and internal controls may need changes to ensure the completeness and accuracy of the information. There might be for example tax changes caused by changing the timing and amount of revenue, expenses and capitalised costs. All these changes may require adjustments to tax planning. At this point the company should also evaluate, which systems may need to be updated to capture the new data needed for the additional estimates and disclosures. On the third phase company should recognize the sectors, which require closer analysis. For example, sales and contracting processes may need to be considered. In the fourth stage companies should choose from the different transition methods available the one, which best fit in their organization. Keeping in mind the information needs of analysts and investors. (KPMG 2014 First Impression)

At the last phase it is important to inform the stakeholders, so that they will fully understand the impact on the business. Investors and other stakeholders will want to build common understanding probably even before it becomes effective. They might be for example interested in the effect on financial result, the cost of implementation and possible proposed changes to business practices. (KPMG 2014 First Impression)

Figure 4 Fields to consider when taking the new standard in use



Source: Tuomala & Jalkanen-Steiner 2014

The case company had its own implementation tool containing process description for implementing new IFRS standards. Every standard goes through the same process, but depending on the standard it varies, which people are included in the project. In the new revenue recognition standard implementation, it is for example important to communicate with division sales and controlling people. The process normally begins years before the implementation.

Even those industries with less material changes such as forest industry sector still need to review processes, organize internal training and verify information technology systems. Personnel involved in the project will depend heavily both on the organization's structure and size. The impacts on systems, controls and processes mean anyway that personnel are involved most likely from many different functions. (Tysiac 2014)

The next chapter summarises the literature review and highlights the key differences between the old and new revenue recognition standards.

4. SUMMARY LITERATURE REVIEW

4.1 Revenue recognition standards

The table 2 summarises the key differences between the old and new revenue recognition standards. IFRS 15 includes revenues only rising from customer contracts. The former standards IAS 18 on the other hand included also interest and dividend income. Currently dividend and interest income belong under financial instruments standard. Construction contracts are also recognized under the new IFRS 15. Before under IAS 11 entities needed always first to estimate if the customer contract meets the definition of a construction contract. Now the main idea is to consider whether the revenue is recognized over time or at a point in time. (EY 2016, 185) For US GAAP reporters, the new revenue standard is more principle based as the former revenue standards included detailed industry specific instructions. Now all revenue is recognized under Topic 606.

Timing of revenue recognition might change under the new IFRS 15. Before revenue was recognized when transfer of risks and rewards were transferred to the buyer. Now under IFRS 15 revenue is recognized when the control of goods is transferred to a customer. These two approaches are different as the control of an asset refers to ability to direct the use and obtain all benefits from the asset. At the same time control prevents other from directing the use of the asset. (EY 2016, 184) Before under IAS 18 for example if a company covered loss or damage during carriage the revenue was recognized at the point of delivery after the shipment. IFRS 15 however requires assessing whether control passes to the customer at the point of shipment or at the point of delivery. In case revenue is recognized at the point of shipment part of the transaction price could be allocated as “shipping and risk coverage” service. That part of the revenue would be recognized after providing the service. (Deloitte Differences vs. IAS 18 2014) IAS 11 construction contracts had before two options on timing of revenue recognition. Stage of completion or cost incurred methods could be used.

Under former US GAAP revenue recognition concept revenue had to be earned and realizable before it could be recognized. Revenue was considered earned when the entity had fulfilled all its obligations to the customer and realizable when related assets were convertible to cash or claims to cash. Thus, the former revenue recognition practices focused on the occurrence of critical events instead of concentrating on changes in assets and liabilities. (Epstein 2015)

The requirement of identifying each performance obligation in a customer contract is one of the biggest changes in the new revenue standard. Before under IAS 18 the standard was usually applied separately to each transaction, but there was no guidance on what should be considered as separate performance obligations. This led to situation, where combined goods and services could be recognized together. For example, before free maintenance could be offered to a customer as a marketing activity without defining price of the maintenance part. This clearly decreased the transparency of the transaction. Hence previously under IAS18 there was clearly greater room for judgement when identifying goods and services within a contract due to lack of specific guidance. (Deloitte Industry insights for IFRS 15 2014) Moreover IAS 11 construction contracts had even less guidance as no specific instructions were provided. Former US GAAP revenue recognition concept provided some guidance on separating performance obligations, but the instructions were found insufficient. It was unclear when contracts should be divided into components and how the revenue should be split between the components. (Epstein 2014)

Determining transaction price differs under IFRS 15 compared to previous. Under IAS 18 fair value was used as a standpoint for the transaction price. However, the new standard has more specific requirements concerning variable consideration. Entity is expected to define the probable expected income, which will flow to the entity. For estimating the variable amount a company is obligated to use either the expected value method or the most likely amount method. Under IAS 11 contract costs were used as a basis for defining the transaction price. Former US GAAP revenue recognition model had various requirements for recognising variable consideration in different standards. Vendor specific objective evidence (VSOE), third party evidence (TPE) or estimated selling price were in use.

For IFRS reporters one of the backsides of the new standard is the increased disclosure requirement. US GAAP reporters were used to providing very detailed disclosure information and as the new standard is converged standard between IFRS and US GAAP the disclosure requirements are a compromise between modest and very detailed. For US GAAP reporters the disclosure requirements have decreased, but IFRS reporters need to provide more information than before.

Table 2 Differences between revenue recognition standards

	IFRS 15 / US GAAP Topic 606	**IAS 18**	**IAS 11**	**Former US GAAP**
Revenue type	All customer contracts	Sale of goods, rendering of services, interest and dividends	Construction contracts	Industry specific instructions
Timing of revenue recognition	Transferring control of goods	Transfer of risk and rewards	Stage of completion or costs incurred	Realizable and earned
Separating performance obligations	Two-step approach	Usually applied separately to each transaction	No specific instructions	Provides guidance (Insufficient instructions)
Determining transaction price	Probable expected income	Fair value	Contract costs	Vendor specific objective evidence (VSOE) or third party evidence (TPE) or estimated selling price
Disclosure requirements	Detailed	Modest	Modest	Very detailed

4.2 SWOT analysis on the IFRS 15

Swot analysis illustrated in Table 3 is used here in analysing the strength, weaknesses opportunities and possible future threats of implementing the new IFRS 15 revenue recognition standard. At the same time this chapter summarizes the key elements of the new revenue recognition standard. As emphasized in the beginning of the study unifying the reporting between IFRS and US GAAP is one of the major advantages of the new standard. Same reporting principles make the global comparison of financial statements easier in the future.

Also due to the increased closure requirements analysts and investors will have more information available for their decision making. In addition, the new standard should unify revenue recognition between current IFRS reporters through more detailed instruction.

For US GAAP reporters, which were used to even more detailed industry specific instruction the new principle based standard may cause confusion. Despite the increased details managers can interpret the principles differently and the rather complicated standard still requires a lot of work inside a company to build a clear understanding of the new standard. For some industries such as software and telecommunications the new standard has poorer suitability. It is clear that those accounting rules that require a significant degree of judgement, present greater challenge from an enforcement and litigation perspective (Sherman 2015). According to SEC study (2003) on principles-based accounting system, principles-based standards present implementation difficulties because of a lack of guidance or structure for exercising professional judgment for companies and auditors. In the absence of clear "rule-book" the risk of subjective judgment increases, or there might be even reasonable differences of opinion.

Though the increased cooperation between IASB and FASB can result to creating new unified standards and lead slowly towards real global reporting standards. Also, this kind of project promotes the use of IFRS standard and new countries may be interested to join in. However, the tight schedule in taking the new standard in use was expected to create a challenge for companies that needed to modify their IT-systems and business processes. This would have resulted in weakened quality of financial statements during the first reporting year. Some companies were worried of the increased disclosure requirements and the amount of extra work it was expected to cause in financial statement preparation. In case IASB and FASB do not find agreements in some issues it might be tempting solution to the standard planners to add the needed information as part of the disclosure requirements, which means that the disclosure requirements would continue expanding. In addition, US GAAP reporters have raised concern that the new standard leaves more room for judgement and may this way weaken the comparability between companies. The lack of specific rules might create opportunity for misjudgement, error and in the worst-case even earnings management (Morgan & Watson 2015).

Table 3 SWOT analysis IFRS 15

Strengths	Weaknesses
• Unified reporting standard between Europe and USA • More detailed instructions for IFRS reporters • More information for stakeholder through increased disclosure requirement	• Principle based standard leaves still room for interpretation • Complicated standard requires lot of work in getting deeper understanding • Poor compatibility in some industries
Opportunities	**Threats**
• Further globalization of IFRS standards • Collaboration of IASB and FASB towards unified financial reporting standards	• Poor preparation of companies results in different revenue recognition practices • Disclosure requirements continue expanding • Lack of detailed instruction for US GAAP reporters leads to earnings management

The next chapter analyses performance obligation separation based on the generic model.

5. RESEARCH METHOD & DATA

5.1 Research Method

The first part of the study is implemented by using academic literature and reports from big audit corporations such as Deloitte, EY, KPMG and PWC. IFRS foundation and Financial Accounting Standard Board (FASB) have also been important sources for this study. The literature review highlights the key differences in the new revenue recognition guidance and examines public view on the new standard. It also illustrates the main pros and cons of the standard from both IFRS and US GAAP reporters' point of view.

The second part of the study examines more detailed the challenges in the performance obligation separation based on single case study. Case studies are useful in answering questions "Why?" and "How?" and therefore, it is the chosen methodology for this research. The research is descriptive and exploratory from its nature and single case studies are appropriate and justified if researcher receives access to information, which is rarely accessible to researchers as it provides yet unknown insights. (Blumberg 2015, 375) As a case material the study uses public company customer contract documents. Content of a customer contract is highly confidential, which leaves multiple case study out of question.

5.1 Research Data

Customer contracts are often saved in different locations and therefore collecting contracts can already be an extensive work inside a company. In the case company customer contracts were collected from division sales representatives by the Group Controlling department. The group controlling had prepared themselves for the standard change, by reviewing their different type of customer contract. These same contracts are analysed again in this study from IFRS 15 guidance point of view. The study examines how well the current guidance fits for practical performance obligation identification in a customer contract level.

The sales contracts are geographically from different countries and they vary in form. There is no standard format for customer contracts hence the length of the contract varies from one page to over twenty pages long detailed contracts. The big variation between the contracts sets one of the main challenges in analysing the content. Contracts are collected from all company different divisions and they represent presentable share from all the customer contracts. The contracts are selected based on their representativeness. The contracts include external sales contracts and other agreements. Altogether 42 contracts were examined with a conceptual model framework. The table 4 below shows the number of contracts per division.

Table 4 Case material

Division	Number of contracts	Share of contracts
A	8	19 %
B	7	17 %
C	4	10 %
D	10	24 %
E	4	10 %
F	9	21 %
Total	42	100%

5.3 Conceptual model

As a principle based standard the IFRS 15 requires companies to make more own judgements and estimates and significant amount of time is needed also for documenting these changes (Morgan & Watson 2015). To apply the new standard an entity must identify all promised goods and services within the contract and define which of those goods and services account as separate performance obligation. This phase is crucial in the new standard as described earlier in the five-step model transaction price is allocated separately to each performance obligation. Hence, in order to allocate the transaction correctly entity needs to identify first the separate performance obligations. What makes this phase even trickier is that the separate performance obligation identification is not limited only to the written contract, but also includes entity's customary business practices.

Therefore, it is not a surprise that in the new revenue recognition standard performance obligation separation has been found as one of the most complicated and time-consuming issues. Based on U.S. public company BDO board survey (2014), where 75 corporate directors were interviewed, 25 percent initiated revising existing revenue contracts with customers as their top implementation challenge right after updating systems and policies (25 percent) (Amato 2014). The IFRS 15 is a principle based standard, which means that it emphasizes broad application of a set of conceptual principles instead of listing detailed rules. Great deal of good professional judgement is required to determine how to apply those principles. In other words, a principle-based standard lays out key objectives and requires those accounting for transaction to decide how the transaction should be accounted. (Sherman et al. 2015)

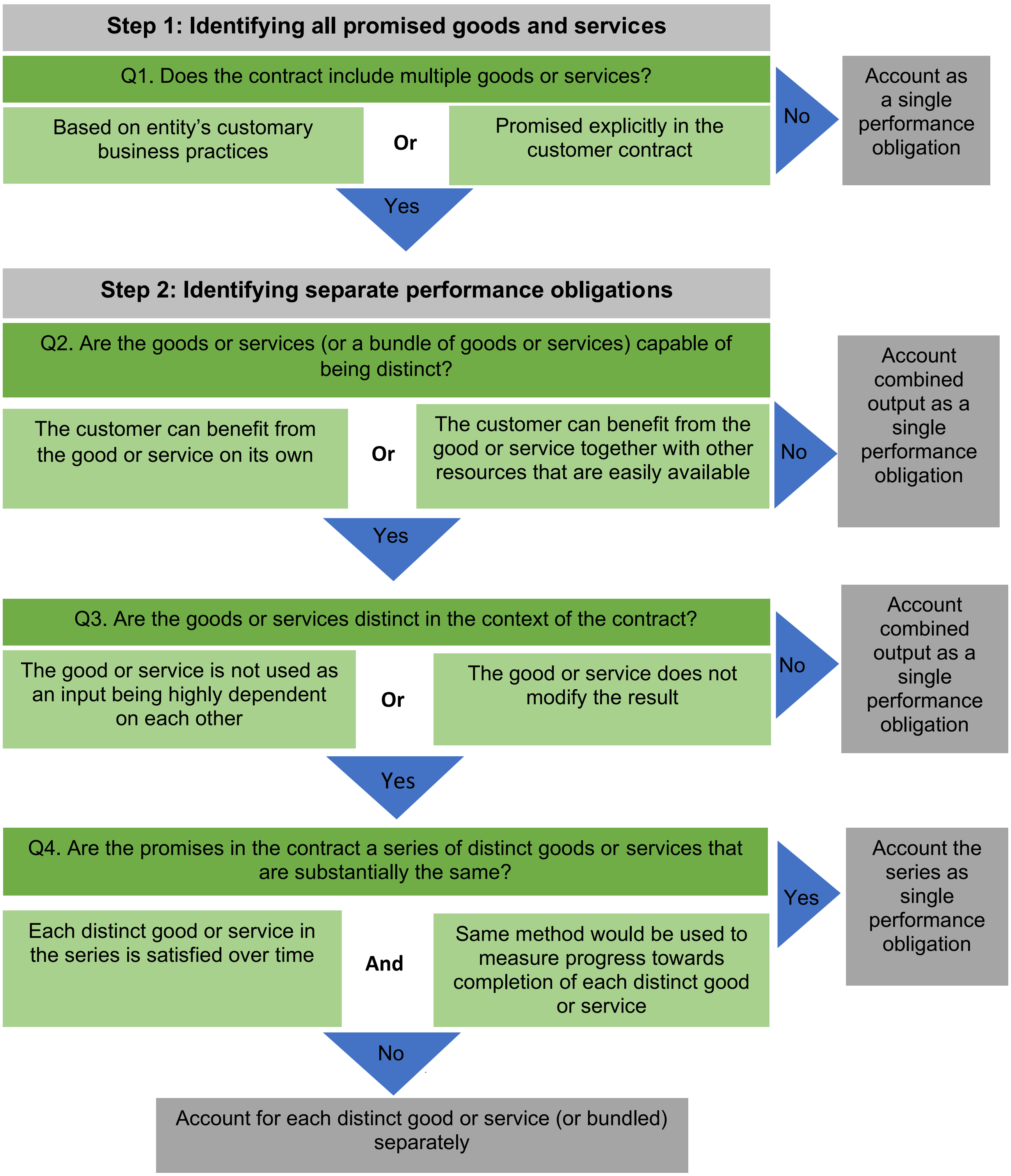
Based on the literature review performance obligation identification is seen as one of the major challenges in the new standard and therefore this study examines how well the separate performance obligations can be identified on a contract level based on the current guidance. It also examines if the current guidance is unclear at some parts and could still benefit from further clarifications. In addition, the contract analysis observes how much the current guidance relies on professional judgement in performance obligations identification. This study concentrates only on performance obligations, which are promised explicitly in the customer contracts and leaves out the analysis of the customary business practices as that would have required multiple interviews inside the case company and expanded the scope of the study. In this research contract level analysis is sufficient for analysing the practicality of the current performance obligation identification guidance.

In order to ease the analysis of the customer contracts a conceptual model is created. The conceptual model shown in figure 5 serves as a generic model and it helps to identify the critical factors in performance obligation separation. The model is built on the current existing guidance and a framework available in Deloitte publication *Implementing IFRS 15 Revenue from Contracts with Customers - A practical guide to implementation issues for the industrial products and services sector* (2015). The model is complemented with the extra clarification concerning performance obligation separation provided by IFRS in April 2016 and therefore is accompanied with one more question than in the Deloitte original framework (appendix 1). The questions 1 and 4 are same than in the Deloitte framework, but question 2 and 3 are modified based on the guidance published by IFRS in April 2016. The amendment clarified when the promises in a contract are “distinct” goods or services and addressed how an entity determines whether goods or services are separately identifiable. The amendment also clarified difference between combined item and individual goods or services. (PWC 2016) The conceptual model question 2 handles the “distinct” concept and the question 3 defines requirement for combined items to which the individual goods and services are inputs.

In Step 1 all promised goods and services are identified in the contract.   If the contract passes all the critical factors analysis can continue to recognize the number of goods or services provided. In case the contract contains just one service or good the contract can be accounted as single performance obligation and no further examination is needed.

However, when multiple services or goods are identified the second part of the model comes in use. The first thing is to examine if the multiple services or goods or bundle of goods or services are capable of being distinct. If the good or a service is not used as an input nor is highly dependent on each and does not modify the results it can be interpreted as a distinct service or good, which should be recognized separately. Though, if these promises are series of distinct goods or services, which are substantially the same they can be still accounted as single performance obligation. Thus, to qualify as a separate performance obligation all these steps need to be examined through.

Figure 5 Identifying separate performance obligation



5. RESULTS ON CONTRACT ANALYSIS

5.1 Step 1: Identifying all promised goods and services

IFRS 15 requires identifying all promised goods and services in the contract promised explicitly in the customer contract or based on entity's customary business practices. As stated in the research method and data chapter in this study only written customer contracts are analysed. Identifying promises implied by an entity's customary business practices would require multiple interviews and would therefore increase the study scope significantly.

Performance obligations do not include any activities that entity must undertake to fulfil a contract such as administrative tasks unless those activities transfer a good or service to a customer. Depending on the contract promised goods or services may include sale of goods produced by an entity, resale of purchased goods, resale of rights to goods, constructing asset on behalf of a customer or providing services. For an entity to identify the promised goods or services it needs to consider whether there is a valid expectation from customer side that the entity will provide a good or service. The expectation is most likely a result of a promise made in a contract or based on customary business practices. (EY 2016, 58) The first step is to identify all promised goods and services in the contracts, which are promised explicitly in the customer contract. The appendix II contains the recognized goods and services table by contract.

5.1.1 Delivery terms and risk coverage

The Incoterms contain clear instructions when the responsibilities and obligations shift from the seller to buyer. Moreover, they define who takes care of insurance, taxes or duties, where the goods should be transported to and who is responsible for the goods at each step during transportation. FCA is abbreviation of "Free carrier". This term means that the seller delivers the goods to the buyer, when he hands them over to the carrier nominated by the buyer at the agreed place and at the agreed time of delivery. The buyer takes the delivery of the goods after the seller has handed the over to the carrier and naturally pays the cost. The seller takes care of the export formalities and the buyer is responsible for the import formalities. In this case the company is responsible for delivering the product to the Brake port in Germany.

DAP (Delivered at place) is commonly used. This incoterm requires the seller to deliver the goods to the buyer by placing them at the disposal of the buyer at the agreed place of destination. The agreed place can be port or directly to the customer. The difference with these two incoterms is that FCA requires the product to be handed over to named carrier such as shipping company. (Incoterms 2020) When using incoterms DAP the product can be delivered to warehouse in port and the customer arranges delivery from there onwards.

Risk of loss or damage to the goods shall remain with seller until delivered to the customer. The incoterms Delivered Duty Paid (DDP) already covers the fact that, the seller pays the costs and bears the risk of loss of or damage to the goods until he has delivered them. (Incoterms 2020) The Incoterms define who covers the risk during the delivery. All the risks are however not always covered. For example, with valuable deliveries the customer might need to take extra insurance as the delivery company is not able to bear the cost for example in the case of theft.

5.1.2 Warehousing and consignment stock

Pulp business also included consignment stock agreements. Consignment stock agreement means that the pulp grades are delivered and placed on consignment at predefined storage area. Based on the agreement the customer or the supplier is responsible for the insurance at the storage period and cost of the storage, but during the storage the pulp grades are marked as property of seller. The buyer reports the seller the usage of the consignment stock and the seller produces invoices accordingly to the consumption. In case at the end of the month there is a bigger consignment stock left than agreed, the seller invoices also the remaining products. The consignment stock agreement does not define product prices. The agreement holds merely products, delivery and invoicing terms. Prices are listed in separate contract. Consignment stock agreement holds one services at this case. Delivery of the products to the agreed storage area. However, it is more common, that the supplier covers the cost of holding the consignment stock. Free warehousing period is defined in the contract and there is a charge after the free period.

Consignment stock agreement alone is open to various interpretations concerning the timing of the revenue recognition. According to IFRS 15 revenue shall be recognised, when the control of goods has been transferred to the customer. Under old IAS 18 the timing of revenue recognition was based on transfer of risks and rewards. It could be argued that in those cases, where the customer arranges the storage, pays the cost and takes care of insurance of the products at the storage area, the control of goods has been passed to the customer when the products are delivered to the storage. Only the contract says that the property belongs still to the seller at the storage area, but additional clause in the contract does not eliminate the fact that the performance obligation is satisfied by delivering the goods or services to the customer storage area. Therefore, it can be viewed, that the invoice should be produced as the products are delivered to assigned place in those cases, where the customer also covers the insurance.

In forest industry supplier might also be keeping a certain inventory level on customer's behalf. Safety stock is commonly specified in a contract as a separate service. The supplier shall carry a safety stock for example for maximum 90 days and provide quarterly reports regarding safety stock level. Or the supplier shall provide free warehousing for 45 days and after that the material will be invoiced with upcharge. Safety stock amount and time is defined separately in every contract. In generally the bigger clients tend to receive better safety stock terms as they have more negotiation power.

5.1.3 Sustainability certificates

Some contracts require that all goods shipped to the customer shall be produced from facilities that are certified under the FSC and PEFC chain of custody schemes. FSC chain of custody certification provides credible confirmation, that the product comes from environmentally and socially responsible sources. Chain of custody assessments at the mill are carried out by independent certification bodies. As supply of FSC certified wood is often not sufficiently available to meet the growing demand, FSC allows businesses to source controlled wood to make up a limited percentage (30 per cent) of the total manufactured product. Controlled wood standard requires organizations to obtaining their raw mate-rials from low-risk sources which excludes unacceptable categories such as illegally harvested wood, wood harvested in violation of human rights or destruction of conservation values. Consumers are increasingly demanding eco-friendly and responsible products. (FSC org) For FSC certified products there is usually a price premium, but PEFC is standard certification, and all European mills are generally under it. The FSC (Forest Stewardship Council) Chain of Custody certification has an upcharge based on 100% certified fibre content.

5.1.4 Technical customer service

Suppliers provide commonly technical customer service to their customers. The technical customer service handles customer complaints and can help customers to find new solutions or build new business. Sometimes the provided technical customer service is defined in the sales contract. For example, prior to shipment the supplier is required to take representative sample of the goods to confirm that the goods comply with the specifications and are in accordance with the quality standards. Seller shall also maintain the samples for a period of six months and make samples available to the customer immediately upon customer request. By obliging the supplier to test every order before the shipment, the customer can decrease their risk of having to make a complaint. Of course, only big customers with significant volumes can expect to receive this kind of special service.

5.1.5 General trade rules

In part of the pulp contracts General Trade Rules for Wood pulp were included as part of the contract. The general trade rules define dispute handling, limitation of liability, ownership of the goods, claims, applicable law to be followed and Arbitration. The general trade rules cover only administrative tasks and therefore do not qualify as a good or service. Generally, the pulp contracts include named products, price base, quantity forecast from the customer, delivery terms, volume rebates and contract period. The price can change during the contract based on market price fluctuations. In pulp business the price is rather volatile and can have major changes between years and even during the year. Therefore, prices are often tied to RISI market prices, which is the leading price reporter in global forest products.

Customer specific general trade rules are used with some customers. Big customers have specific trade rules, which they provide to their suppliers. The rules cover mainly administrative tasks such as monthly reconciliation of accounts and specific instructions concerning deliveries. Trade rule can for example define, that pallet size is fixed, and product should be delivered within 72 hours after the purchase order date. These rules do not qualify either as a good or service as the nature is administrative.

5.1.6 Special contracts and clauses

All the customers do not have separate predefined signed contract. With bigger client's customer contract is sometimes replaced by signed price list, which includes general terms, base pricing and zone pricing. Upcharges and rebated are listed separately based on technical parameters, order quantity and forest certification parameters. Freight costs are listed separately, and price varies between location and delivery term (Incoterms).

Another special contract is supply frame agreement. The frame agreement is made between the supplier and a large customer with multiple locations. The contract defines product, price and delivery terms, but the invoicing system is more complicated. First printers will order and pay for the product. Thus, printers have ownership and responsibility for the product at that point. After the products are printed, the printer informs the volumes to the supplier and their client. Supplier sends then a credit invoice to the printer and invoices the volumes on the terms set out in the frame agreement. This way the end client for example a publishing house is not responsible for the resolving issues around the delivery and quality of the products as printers buy the product. Thus, a big publishing house can use their negotiation power concerning the price and inform printers of the volumes that they should order.

With some customers volume bonus agreement is signed. The agreement covers yearly bonus, which is paid based on yearly volume. This kind of bonus agreement does not include multiple service. Other special agreement is Memorandum of Understanding ("MOU"). The contract covers only rebates and price amendments. The MOU refers to separate price list, which contains sales conditions and product prices. Thus, MOU is only an amendment to price list and does not include multiple goods or services.

Marketing support clauses are common when dealing with merchants. Marketing support are described as services, that client renders centrally or locally for the supplier. Fees for marketing support is listed separately and client takes care of invoicing the service. Supplier will pay the marketing fee by issuing a credit note to the client or marketing support can be also included as part of yearly bonus agreement. In those cases, yearly bonus has a volume based variable share and fixed intermediary service fee. Marketing support can be also own revenue stream for the client depending on the contract.

Intermediary service fee on the other hand is invoiced by the client separately and VAT rules apply according to the service provided and therefore it is not credited of the taxable amount of any supply goods. Forest industry companies have also internal agreements concerning product deliveries inside the group. Internal agreement contains product, delivery and payment term just as normal customer contract.

Service agreements can also include special clauses requiring co-operation from both contract parties. Cost reduction program is one of these cases. The supplier and the customer agree to work together on a shared cost reduction program for the duration of the agreement. The program is further divided to individual programmes relating to logistics, packaging and administration. Any gained savings will be shared 50:50 between the parties.

In wood products building solution services are offered with the product. These services include design and installation of wooden elements and construction projects. In combination of wood product sales, a cutting service is also provided to the customers.

The next step is to determine, which of the promised goods or services qualify as separate performance obligations.

5.2 Step 2: Identifying separate performance obligations

The second step of the model "Identifying separate performance obligations" holds three questions, which help to distinguish goods or services, which should be recognized separately. To identify separate performance obligation entity should consider whether there is a valid expectation from a customer side that entity will provide a good or service. If customer expects the service, then most likely it derives from the promises made in a contract. (EY 2006, 59) The first question identifies if goods or services are capable of being distinct. If the good or service qualifies as distinct then the second question considers if it is distinct in the context of the contract. The third final question contemplates if the promises in the contract are a series of distinct goods or services that are substantially the same.

TRG (Transition Resource Group for Revenue Recognition) members stated in January 2015 that the standard is not intended to require the identification of promised goods or services, which are not accounted for as deliverables today and entities should consider materiality in determining whether items are promised goods or services. The Board also agreed that it does not expect entities to identify significantly more performance obligations than under IAS 18. As mentioned before FASB standard allows entities to disregard immaterial promises, but IFRS 15 does not contain separate language that indicates that an entity can disregard goods or services, which are immaterial in the context of a contract. (EY 2016, 63) This can be somewhat confusing for IFRS reporters that the discussions are not included as a part of the IFRS guidelines (IFRS, TRG Revenue Recognition).

5.2.1 Identifying distinct good or service

A good or service or a bundle of goods or services must be distinct in order to qualify as a performance obligation. If the customer can benefit from the good or service on its own or together with other resources that are easily available, there are separate performance obligations in the contract. In case separate performance obligations are not identified as combined output they can be accounted as single performance obligation. In the next sub chapters, we will go through the identified services and goods listed in the step 1 and analyse their capability of being distinct. The Appendix III shows the list of identified distinct goods and services by contract.

5.2.1.1 Delivery terms

Almost all the contracts include product and delivery. FASB Topic 606 allows entities to account shipping and handling activities performed after the control of a good has been transferred to a customer as a fulfilment expense. IASB has not permitted similar policy choice in IFRS 15 and requires allocating a portion of the transaction price to the shipping service and recognise it when the shipping occurs. Entities with significant shipping operations may make here different policy choices (EY 2016, 62). In the forest industry shipping and invoicing usually occur at the same time. Thus, it is less likely that shipping would need to be recognized separately.

The question here remains if separate delivery for the product would be easily available. For practical reasons transportation and product delivery are usually considered belonging to the same pattern in the forest industry. However, transportation services could be offered by a third party and the service can be separated from the main product. In those cases, where railway transportation is provided directly from the mill, it could be argued that finding alternative delivery company would be logistically challenging. Usually, the products are however loaded in trucks and shipped from a port. Multiple logistics companies provide services, and those resources are easily available.

It could be claimed that the delivery service would not be needed without the product. In other words, customer would not benefit from the delivery without the product. However theoretically product and delivery could be separated as the supplier pays separately for the carrier and exact price is available. Therefore, we conclude that delivery is capable of being distinct. The timing of revenue recognition does not change as the product delivery and transport occur at the same time.

Risk coverage can be seen as part of delivery performance obligation and not a separate risk coverage obligation, because the risk coverage is determined in the Incoterms. Therefore, insurance coverage could be seen being part of delivery obligation and not a separate performance obligation.

5.2.1.2 Warehousing, consignment stock and supply planning

It is normal in forest industry that the seller pays for the warehouse custody and it is not always separately mentioned in the contract. Almost all customers are offered a free 60-days warehousing. Using port warehouses gives more flexibility to the buyer as they can enjoy free warehousing and arrange the final delivery according to their needs. Warehousing outside of mill location could be arranged by a third part as supplier does not normally own the port warehouses. Subsequently, third party is already involved in the process.

The warehousing service is normally outsourced in the forest industry, and suppliers pay fee for the port warehouses. However, the warehousing cost is not considered as significant cost and it could be argued that the customer would not benefit from the warehousing without the product. The warehouses help suppliers in their production planning as all the orders do not need to be delivered the customer straight after the production. It is common that production does not run as smoothly as planned and the warehousing service gives more flexibility at both ends. Also, for the customer it can be difficult to forecast how much paper or board they need in the next month.

For example, a printing company must plan well ahead their printing schedule as they serve as well multiple clients. Making call of from the consignment stock enables delivery in just few days. Ordering paper or board from the mill production must be made sometimes even three months advanced. As the value chain is long and demand is seasonal, planning well ahead is critical. For smaller customers free warehousing is not always provided and those customers must rely on other warehousing resources. Therefore, we conclude that warehousing is capable of being distinct at this point. The customer cannot benefit from the warehousing service on its own, but can benefit from it with other resources that are easily available.

5.2.1.3 Sustainability certificates

Mill certification on the other hand is an obligation, that the customer cannot benefit without the product and third party cannot provide it as it is connected to the audited mill. Thus, mill certification is not a separate performance obligation.

Product certification on the other hand has more potential of being distinct. Certification of forest industry products operate similar way than environmentally friendly energy market. The mill purchases certain amount of FSC certified wood in a year and that raw material quantity is then converted to tons of paper or board to be produced. That gives the mill their quota of selling FSC certified products. However, FSC certified wood is mixed in paper and board production with normally purchased wood and as a result, customer buying FSC certified board or paper products receives same product than all the other customers.

Therefore, it could be argued that as certification has predefined price upcharge and the yearly volume is based on mathematical equation, it qualifies as separate intangible good. In practice you of course cannot buy certification label from one producer and product from other, but in theory it would be possible. In Finland there is not enough FSC certified wood available for all the producers and therefore the FSC chain of custody certification is commonly used as discussed before. It can be concluded that the certification requirement is separate from the product and could be interpreted as a separate service.

5.2.1.4 Technical customer service

Traditionally technical services such as sample testing on behalf of customer has not been identified as separate performance obligation. Technical customer service cannot be interpreted as administrative cost either or fulfilment expense, but maybe it has some similarities with marketing services. As discussed, earlier performance obligations do not include any activities that entity must undertake to fulfil a contract such as administrative tasks. If the provided technical customer service is defined in the sales contract separately, it could fulfil the requirements of distinct service. In case of the sample testing the customer can't benefit from sample testing on its own without the product, but could benefit from the service with other resources that are easily available. There are multiple laboratories in Europe that could do the sample testing. Therefore, it could be argued that the sample testing is indeed a performance obligation.

Technical customer service is clearly not a clear cut and leaves room for interpretation. The technical service contains varies tasks from sample testing to customer product support. Every provided service would need to be analysed separately. As mentioned earlier marketing incentives such as ‘free maintenance’ or customer loyalty points are separate performance obligations under IFRS 15 as customer pays for those goods and services. Revenue should be therefore allocated separately to those incentives. From this point of view free sample testing should be recognised separately as well.

5.2.1.5 Special contracts and clauses

Most of the special contracts do not have multiple performance obligations as the special contract is an addition to normal sales contract. Such as yearly bonus agreement. The special invoicing pattern in supply frame agreement, where the printer is credited after purchasing the volumes and the end client invoiced based on printed product volumes, can be interpreted as administrative task and therefore does not qualify as a distinct service.

Marketing clause, where a customer is marketing supplier products either under supplier brand or their own brand is separate service provided by the customer, not by the supplier. Therefore, it cannot be interpreted as a separate performance obligation. Secondly as marketing support is to be deducted from customer’s payables and it impacts revenue stream, it can be interpreted as an operational cost component that reduces future trade revenue according to the contract clause, but does not count as separate performance obligation. Intermediary service fee belongs to this same category and does not count as separate performance obligation either.

Co-operation agreements such as cost reduction program, which requires supplier and the client to share gained savings 50:50 between the parties is connected to the product, but it is not stated how the gained savings will be reconciled. The question remains if the customer could benefit from the cost reduction program on its own or with other resources that are easily available. The client could suggest same kind of deal to another supplier, but still the cost reduction program is in nature a co-operation agreement and cannot be interpreted as a distinct performance obligation. Agreement to save costs does not create additional revenue. If the costs are variable, the product contribution margin improves, but no additional revenue is recognized.

Product and design service in wood product sales are capable of being distinct as the customer could benefit from the product on its own and order the service from another company. Therefore, revenue is always recognised separately in design and installation of wooden elements. For construction projects product and service should be as well invoiced separately.

In the next chapter the identified distinct goods and services are analysed in the context of the contract.

5.2.2 Significance of contract environment

The goods or services are distinct in the context of the contract if the good or service is not used as an input being highly dependent on each other or the good or service does not modify the contract. At this point the user of the framework will go through all the identified distinct goods and services and consider at the contract level if the performance obligations are dependent on each other. The Appendix IV shows the list of identified distinct goods and services in the context of the contract.

5.2.2.1 Delivery terms

In those cases where delivery could be arranged through a third party, it can be argued that the product is not highly dependent on the delivery. On the other hand, if the supplier company owns the railways at the mill site, other logistics companies may not be allowed to operate on their property. At that case good and delivery would be highly dependent on each other as the customer could not benefit from the goods without the delivery, which is provided as a service.

The second question questions whether the delivery modifies the result. For this part, the clear answer is no. Arranging delivery can’t be seen in anyway modifying the product. Despite the location the product stays the same.   As mentioned before for practical reasons transportation and product delivery are usually considered belonging to the same pattern in the forest industry. However theoretically delivery service is distinct in the context of the contract. Therefore, conclusion at this point is that delivery service should be accounted separately.

5.2.2.2 Warehousing, consignment stock and supply planning

Warehousing does not either modify the results as the product stays the same. Only location changes as the product is delivered from the mill to assigned warehouse for waiting customer call-off.

Counter argument is that production planning and inventory optimisation are mill core processes and cannot be separated from the production process. Therefore, it could be argued that inventory belongs to same pattern with the main product sales. All inventory management services are seen as competitive advantage and therefore selling only the product and letting third party offer the service part is not profitable. However as in many contracts free ware housing is limited to agreed number of days and surcharge is charged after the free period. As the free warehousing benefits also supplier in their process optimisation and it is commonly offered in the industry, it cannot be seen as separate performance obligation. It is not possible to deliver all the orders directly from the production as production planning is complicated. For example, in the board production grammage defines the production order. The production runs in sequential order from lower weight to higher and then again toward lower weight. This way smaller adjustments are needed on the machine between the product change. Therefore, without the free warehousing customer would need to wait always for the next production run. There is also a minimum amount, what you can order from production and for smaller customers the amount can equal to their whole year demand. Thus, many suppliers hold some stock rolls in case of smaller orders.

In consignment stock agreements it varies who bears the cost of warehousing. Bigger customers tend to get better warehousing terms. Nevertheless, the consignment stock agreement can be seen also part of inventory management and being highly dependent on each other. Therefore, it does not account as separate performance obligation.

5.2.2.3 Sustainability certificates

We concluded already in question two, that the customer cannot benefit from the mill certification on its own and the question three affirms the conclusion. Mill certification is an input that can be seeing being highly dependent on the product. There is no product without the mill and without the certification customer would not most likely order the product to be produced. It could be even argued that certification modifies the results as certified mill can assumed to produce better quality products.

Product sustainability certificates are considered belonging to the same pattern with the main product sales. FSC certified board is considered as separate product from other product offering. The certification is highly dependent on the product as it cannot be sold alone. In addition, the certification modifies the product as normal board in converted to sustainable board, when customer pays upcharge for the product. Therefore, performance obligation separation is not possible between the certification label and the product.

5.2.2.4 Technical customer service

Sample service on the other hand is not highly dependent on the product as the product can be used even if the sample is not tested. The sample does not either modify the result as the product is ready before the sample is taken. However, suppliers see technical services relating to solving technical issues involve confidential business information and cannot be outsourced to external parties. Technical service is highly linked with the specific product offering. Based on the product requirements there is specification connected to each product, describing the board properties, that supplier should deliver.

Sample testing is seen as security measure, that guarantees stable product quality. From this point of view technical customer service is highly dependent on the product and cannot be separated. It can be concluded that in the context of the contract the sample service belongs to the same pattern with the product. Thus, technical customer service can be combined with product as a single performance obligation.

5.2.2.5 Special contracts and clauses

Most off the special contract clauses do not qualify as distinct good, or service and the combined output is identified as a single performance obligation already in the previous step. Only product and design service in wood product sales are capable of being distinct as the good and service are not highly dependent on each other and the service does not modify the result. Therefore, revenue is always recognised separately in design and installation of wooden elements. For construction projects product and service should be as well invoiced separately as concluded already in the first part of step two. Although there has been a common practice to invoice these together.

If the answer is “yes” at this point of time the user of framework moves to the fourth final question, which handles goods or services recognised over time.

5.2.3 Identifying series of distinct goods or services

The final question asks if the promises in the contract are series of distinct goods or services that are substantially the same. For this to be true each distinct good or service in the series is satisfied over time and same method would be used to measure progress towards completion of each distinct good or service. The fourth question is valid for products or services, where revenue is recognised with percentage of completion method. All the analysed sales contracts are recognised at a one point in time. In forest industry the control passes to the customer generally at the point of delivery. Only the consignment stock agreement makes exception to this as even though the risk is transferred to the customer and it could be argued that customer controls the product at that point, the products are invoiced based on usage.

As discussed before under IFRS 15 control of a good or service is transferred over time if the customer simultaneously receives and consumes the benefits. Also, if the company’s performance creates or enhances an asset that the customer controls it should be recognised over time. However, if the company’s performance creates an asset with an alternative use and the company has a right to payment for performance completed to date the revenue is recognised at a one point in time. (Jones & Pagach 2013) The Appendix V shows at the contract level result of the analysis.

5.3 Summary of contract analysis and discussion

Conceptual model can help in identifying the contract performance obligations and help to determine, which of the distinct good or service should be accounted separately. In IFRS 15 identifying separate performance obligations is found as one of the most time consuming, difficult and maybe even confusing part of the standard. In the old revenue recognition standard IAS 18 bundle of good and services could be recognised together and therefore the performance obligation concept is new for many of the accounting professionals. The summary table 8 shows the 18 discovered obligations in the contracts and identifies, which of them should be accounted as separate performance obligation. Performance obligations do not include any activities that entity must undertake to fulfil a contract such as administrative tasks. Therefore, setup activities or administrative tasks are not included in the table. Services amount over 90 percent of the promises.

Table 5 below shows the distribution of number of promises made in the contact. Altogether from 42 customer contracts 86 percent had multiple goods and services. Approximately half of the contracts had only product and delivery identified as promises made in the contract. Third most common component was safety stock or other kind of free warehousing agreement. Just as common was also certification promise. Fifth of the contracts had three different components identified. Only 17 percent of the contracts had four or more separate promises made. Only wood product contracts had construction, design and installation services. Other promises made in the contracts were different kind of co-operation agreements from marketing fee to cost reduction program. Technical customer service was also listed as separate service. Multiple goods or services promised explicitly in the customer contract are simple to find and do not require great amount of professional judgement. Nature of administrative cost, setup and fulfilment costs are well described in the standard and based on the current guidance goods and services can be identified easily.

Table 5 Number of goods and services

Number of goods and services	***Number of contracts***	***Percentage***
1	6	14 %
2	20	48 %
3	9	21 %
4	4	10 %
5	2	5 %
6	1	2 %
Total	**42**	**100%**

Table 6 identifies the distinct goods and services in the customer contract. Goods or services are capable of being distinct if the customer can benefit from good or service on its own or together with other resources that are easily available. Over half of the contracts have two distinct promises. However, table 8 shows that from the 18 listed promises only 10 is capable of being distinct. Special contracts and co-operation agreements such as bonus program, cost reduction program, intermediary service fee, marketing support and mill sustainability certification are not services that could be benefitted alone or with other resources easily available. Nevertheless, the conceptual model first question of step 2 does identify many services still capable of being distinct. The purpose of the new standard was not to significantly increase the number of performance obligations to be recognized. However, question two does leave room for interpretation and does not narrow down enough clearly the separate performance obligations. Approximately quarter of the contracts have at least three different performance obligations.

Delivery service could be offered by the third party and could be separated from the main product. The timing of revenue recognition would be same for product and delivery as they occur at the same time. Product and delivery are distinct separate performance obligations and should be accounted separately at this point of examination.

Almost all customers are offered a free warehousing for agreed period, which can vary from 60 to 90 days. The customer cannot benefit from the warehousing service on its own, but can benefit from it with other resources that are easily available. Therefore, warehousing in its different forms is capable of being distinct at this point. FSC sustainability certified products are offered with additional price on the top of the product price. As certification has predefined price upcharge and the yearly volume is based on mathematical equation, it qualifies as distinct intangible good.

Technical customer service is clearly not a clear cut and leaves room for interpretation. The technical service contains varies tasks from sample testing to customer product support. Every provided service would need to be analysed separately. As mentioned earlier marketing incentives such as 'free maintenance' or customer loyalty points are separate performance obligations under IFRS 15 as customer pays for those goods and services. Revenue should be therefore allocated separately to those incentives. From this point of view free sample testing should be recognised separately as well.

Product and design service in wood product sales are capable of being distinct as the customer could benefit from the product on its own and order the service from another company. Therefore, revenue is always recognised separately in design and installation of wooden elements. For construction projects product and service should be as well invoiced separately as service could be ordered from other company.

Table 6 Number of distinct goods and services

Number of distinct goods and services	*Number of contracts*	*Percentage*
0	8	19 %
1	0	0 %
2	23	55 %
3	5	12 %
4	5	12 %
5	1	2 %
6	0	0%
Total	42	100%

As many services are capable of being distinct based on the question two the question three narrows down the option. Goods or services are capable of being distinct in the context of the contract if the good or service is not used as an input being highly dependent on each other and it does not modify the results. After question three Table 7 shows that 80 percent of the contracts have only two distinct performance obligations. Table 8 shows. Technical customer service including sample service, free warehousing and FSC certification are considered belonging to same pattern with the product. These services are highly dependent on the product and therefore are not capable of being distinct. For example, sustainability certificates cannot be physically separated from the main product. Customer could not order certificate from a third-party supplier. As a result, performance obligation separation is not possible.

Table 7 Number of distinct goods and services in the context of the contract

Number of distinct goods and services in the context of the contract	***Number of contracts***	***Percentage***
0	8	19%
1	0	0%
2	34	81%
3	0	0%
4	0	0%
5	0	0%
6	0	0%
Total	42	100%

Table 8 lists the four remaining distinct goods and services. Theoretical point of view delivery is capable of being distinct. However, for practical reasons transportation and product are considered belonging to the same pattern and accounted together as one performance obligation. Under FASB companies can elect to account for shipping or handling activities occurring after control has passed to the customer as a fulfilment cost rather than as a revenue element. IASB does not provide similar policy choice, and this might result in divergence as IFRS reporters will need to determine whether shipping and handling after control has transferred is a performance obligation. (Deloitte FASB clarifies guidance 2016) As discussed before under FASB companies can elect to account for shipping or handling activities occurring after control has passed to the customer as a fulfilment cost rather than as a revenue element. IASB does not provide similar policy choice, and this might result in divergence as IFRS reporters will need to determine whether shipping and handling after control has transferred is a performance obligation. (Deloitte FASB clarifies guidance 2016)

As mentioned already in the previous step product and design service in wood product sales and construction projects are capable of being distinct as the customer could benefit from the product on its own and order the service from another company. Therefore, revenue is to be recognised separately. Although there has been a common practice in construction projects to invoice these together.

The final question asks if the promises in the contract are series of distinct goods or services that are substantially the same. For this to be true each distinct good or service in the series is satisfied over time and same method would be used to measure progress towards completion of each distinct good or service. The fourth question is valid for products or services, where revenue is recognised with percentage of completion method. All the analysed sales contracts are recognised at a one point in time and therefore answer is “No” to all identified goods or services.

Table 8 List of goods or services promised in the contracts

	Goods or service promised in the contract	Is the good or service capable of being distinct?	Is the good or service distinct in the context of the contract?	Are the promises in the contract a series of distinct goods or services that are substantially the same?	Recognize as separate performance obligation
1.	Product	Yes	Yes	No	Yes
2.	Delivery	Yes	Yes	No	Yes
3.	Sample service	Yes	No	No	No
4.	Mill sustainability certification	No	No	No	No
5.	Consignment stock	Yes	No	No	No
6.	Free ware housing mill	Yes	No	No	No
7.	Free ware housing port	Yes	No	No	No
8.	Safety stock	Yes	No	No	No
9.	Insurance and risk coverage	No	No	No	No
10.	Product FSC certification	Yes	No	No	No
11.	Marketing support	No	No	No	No
12.	Bonus program	No	No	No	No
13.	Intermediary service fee	No	No	No	No
14.	Construction service	Yes	Yes	No	Yes
15.	Design and installation	Yes	Yes	No	Yes
16.	Cost reduction program	No	No	No	No
17.	Co-operation agreement	No	No	No	No
	Number of separate performance obligation	10	4	0	4

IFRS 15 does leave room for interpretation as it is principle based and those principles can be understood in different ways. It is easy to determine if good or service modifies the result, but dependency can be interpreted in various ways. Thus, it could be beneficia to clarify the concept of dependency. It is also stated that while adopting the IFRS 15 companies have taken into use FASB clarifications as IFRS 15 is converged standard with US GAAP topic 606. As mentioned earlier FASB wanted to reduce the work and costs in identifying performance obligations by allowing companies to determinate the materiality of the goods and services. Goods and services, which are immaterial in the context of the contract do not have to be identified. IASB does not provide similar guidance based on materiality for IFRS reporters, but many IFRS reporters have adopted this guidance anyway. (Deloitte FASB clarifies guidance 2016) Thus, there might be difference between companies on their reporting practices based on the used guidance.

The next chapter concludes the study and wraps up the findings.

6.0 CONCLUSION

This study analysed the content of the new IFRS 15 Revenue from contracts with customers standard and highlighted the major changes to the current revenue recognition procedures. In addition, we took a closer look at how the new standard differs from FASB Topic 606 guidance in performance obligation separation. At the end, the critical factors in performance obligation separation were investigated more thoroughly by using public forest industry corporation as a case study. Based on academic literature and reports from auditing corporations identifying performance obligations was expected to be the most arduous change in the new standard and therefore this part was taken into closer examination.

For IFRS reporters the new standard is more descriptive in nature and it leaves less room for interpretation. For US GAAP reporters, who are used to detailed industry specific instruction the effect is just the opposite and the new principle based standard leaves for the US reporters more room for judgement. Key impacts for IFRS reporters used to complying the IAS 18 are in areas of timing of the revenue recognition and identifying the separate performance obligations in the standard, which is has caused extensive work inside companies. Thus, for IFRS reporters the previous standard left more room for judgement compared to the new standard.

The new standard also changed the type of revenue impacted as IFRS 15 recognizes revenue just from customer contracts. Interest income and dividends were moved to as part of financial instrument standard. In addition, the new standard required significantly more disclosures relating to revenue. Most likely companies had to amend their old accounting policies as a result of the more detailed guidance in the new standard.

In the forest industry sector, the standard did not bring major material changes, but still the companies had to prepare themselves as they needed to estimate the possible impacts to controls, IT-systems and business processes. Training of personnel was also an important part of the implementation, which should not be underestimated. Also, for businesses, which act on retail sector the new standard required only limited change. Accountancy professionals have estimated that the changes have most effect on companies that offer complex bundles of goods and services or provide long-term service contracts. The most impacted industries are expected to be telecom, software development and real estate. (Crump 2014)

In the performance obligation separation, the company must first decide whether the goods or services are capable of being distinct on their own. Goods or services are capable of being distinct if the customer can benefit from good or service on its own or together with other resources that are easily available. Almost 80% of the analysed contracts had two or more distinct promises based on the guidance. However, the purpose of the new standard was not to significantly increase the number of performance obligations to be recognized. This part of the guidance does leave room for interpretation and might results unnecessary work as too many distinct goods or services are identified. The remaining distinct goods and services were product and delivery in most cases.

The next step defines whether the goods or services are distinct within the context of the current contract. The question three clearly narrows down the viable distinct goods and services. Goods or services are capable of being distinct in the context of the contract if the good or service is not used as an input being highly dependent on each other and it does not modify the results. From the analysed contracts 80 percent had only two distinct performance obligations left after the examination. Theoretical point of view delivery is capable of being distinct. However, for practical reasons transportation and product are considered belonging to the same pattern and accounted together as one performance obligation. Under FASB companies can elect to account for shipping or handling activities occurring after control has passed to the customer as a fulfilment cost rather than as a revenue element. IASB does not provide similar policy choice, and this might result in divergence as IFRS reporters will need to determine whether shipping and handling after control has transferred is a performance obligation. (Deloitte FASB clarifies guidance 2016)

To determine if the good or service is distinct in the context of the current contract requires a great deal of judgement and may have presented significant implementation challenges for entities. Whether a promise to transfer a good or service is separable from other promises in the contract depends also on the facts and circumstances specific to each scenario. Promised good or service is often not separable if one part is used as an input to produce the combined output or the part significantly modifies or customises another good or service. Also, highly dependent goods or services can be combined. (Deloitte Implementing IFRS 15 2015) The concept highly dependent can be interpreted in different ways and this part of the guidance could benefit from more detailed instructions.

Conceptual model can help in identifying the contract performance obligations and support in determining, which of the distinct good or service should be accounted separately. Multiple goods or services promised explicitly in the customer contract are simple to find and do not require great amount of professional judgement based on the case study. Nature of administrative cost, setup and fulfilment costs are well described in the standard and based on the current guidance goods and services can be identified easily. However, it requires more professional judgement to decide whether services and goods are distinct in the context of the contract. Conceptual model can not be so solid that professional judgement would not be needed.

FASB wanted to reduce the work and costs in identifying performance obligations by allowing companies to determinate the materiality of the goods and services. Thus, a company does not have to identify goods or services to be transferred to the customer that are immaterial in the context of the contract. IASB does not provide guidance based on materiality for IFRS reporters. (Deloitte FASB clarifies guidance 2016) However as IFRS 15 is converged standard with FASB Topic 606 many companies do utilize the FASB clarification in practice. Despite of some weaknesses the new revenue recognition standard still can be seen as a success story as it is a fully converged standard. The new standard will eliminate the major source of inconsistency in GAAP and will bring global reporting closer together.

The findings of this study and utility of conceptual model is limited to the case company, where new standard did not bring major changes in revenue recognition practices. In more impacted industry sectors such as the telecom sector most likely more professional judgement would be needed already at the start in the identifying goods and services. Thus, it could be interesting to further examine how conceptual model approach would work in more complicated industry sector providing intangible goods. By now most of the companies have closed already three financial statement periods using the new standard. Further study could be made on the realised effect of the new standard. It could be fruitful to compare financial statement before and after implementing the new standard to describe the real changes in the reporting caused by more detailed performance obligation separation. In addition, IFRS reporters could be interviewed to find out how many have taken in use the FASB clarification providing some simplification to the performance obligation separation.

The global coronavirus pandemic has created major challenges to companies and impacted their revenue. Governments have supported companies during periods involving restrictions on business activities. More study could be made on how corona situation has impacted revenue recognition and performance obligation separation.

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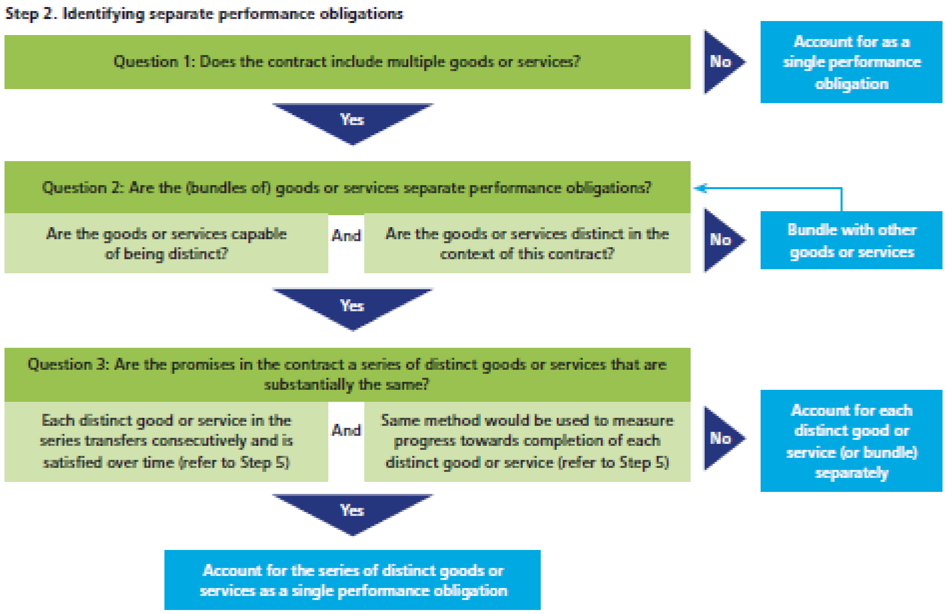
Appendix I

Figure 1 Performance obligation separation by Deloitte framework



Appendix II

Table 1. List of goods and services defined by contract

	Contract nr.	Q1. Does the contract include multiple goods or services	Number of goods or services	Yes or No
1.	A1	Products and delivery. Freight surcharge for railway defined separately. Incoterms FCA port, DAP port, DAP Mill.	2	Yes
2.	A2	Product and delivery DAP mill	2	Yes
3.	A3	Products and delivery DAP named place.	2	Yes
4.	A4	Products and delivery FCA Port.	2	Yes
5.	A5	Consignment stock agreement DAP	1	No
6.	A6	Products and delivery DAP.	2	Yes
7.	A7	Products and delivery DDP, sample testing, certification	4	Yes
8.	A8	Products and delivery DAP, certification	3	Yes
9.	B1	Products and delivery (Incoterms), FSC certification charge, consignment stock	4	Yes
10.	B2	**Products and delivery (Incoterms), FSC certification charge, consignment stock**	4	Yes
11.	B3	Products and delivery (Incoterms), FSC certification charge, consignment stock	4	Yes
12.	B4	Products and delivery (Incoterms), FSC certification charge	3	Yes
13.	B5	Yearly bonus percentage	1	No
14.	B6	Price amendments	1	No
15.	B7	Products and delivery (Incoterms), safety stock maximum 90 days, free warehousing for 45 days, certification charge	5	Yes
16.	C1	Rebate yearly bonus	1	No
17.	C2	Product, delivery, 90 days free warehousing	3	Yes
18.	C3	Rebate, client marketing support fee	2	Yes
19.	C4	Product and delivery	2	Yes
20.	D1	Product, delivery, safety stock, FSC certification charge, marketing fee	5	Yes
21.	D2	Product and delivery	2	Yes
22.	D3	Product and delivery DAP	2	Yes
23.	D4	Product, delivery DDP, safety stock, FSC certification charge, marketing fee, cost reduction program	6	Yes
24.	D5	Product, delivery DAP, marketing support	3	Yes
25.	D6	Consignment stock agreement	1	No
26.	D7	Bonus program, marketing support, intermediary service fee,	3	Yes
27.	D8	Product, delivery, safety stock	3	Yes
28.	D9	Product, delivery incoterms, rebate	3	Yes
29.	D10	Product, delivery DDP, volume rebate,	3	Yes
30.	E1	Co-operation agreement, safety stock, product, delivery	3	Yes
31.	E2	Product, delivery FCA	2	Yes
32.	E3	Product design and installation as a service	2	Yes

33.	E4	General trading terms	1	No
34.	F1	Product and delivery	2	Yes
35.	F2	Product and delivery	2	Yes
36.	F3	Product and delivery	2	Yes
37.	F4	Product and delivery	2	Yes
38.	F5	Product and delivery	2	Yes
39.	F6	Product and delivery	2	Yes
40.	F7	Product and delivery	2	Yes
41.	F8	Product and delivery	2	Yes
42.	F9	Product and delivery	2	Yes

Appendix III

Table 2. List of distinct goods and services by contract

	Contract nr.	Q2. Are the goods or services capable of being distinct?	Number of distinct good or services	Yes or No
1.	A1	Product and delivery	2	Yes
2.	A2	Product and delivery.	2	Yes
3.	A3	Product and delivery.	2	Yes
4.	A4	Product and delivery.	2	Yes
5.	A5	No multiple services	0	No
6.	A6	Product and delivery.	2	Yes
7.	A7	Product, delivery and sample service	3	Yes
8.	A8	Product and delivery.	2	Yes
9.	B1	Product, delivery, FSC certification and consignment stock agreement	4	Yes
10.	B2	Products and delivery (Incoterms), FSC certification charge, consignment stock	4	Yes
11.	B3	Products and delivery (Incoterms), FSC certification charge, consignment stock	4	Yes
12.	B4	Products and delivery (Incoterms), FSC certification charge	3	Yes
13.	B5	No multiple services	0	No
14.	B6	No multiple services	0	No
15.	B7	Products and delivery (Incoterms), safety stock maximum 90 days, free warehousing for 45 days, certification charge	5	Yes
16.	C1	No multiple services	0	No
17.	C2	Product, delivery, 90 days free warehousing	3	Yes
18.	C3	No multiple services	0	No
19.	C4	Product and delivery	2	Yes
20.	D1	Product, delivery, safety stock, FSC certification charge	4	Yes
21.	D2	Product and delivery	2	Yes
22.	D3	Product and delivery DAP	2	Yes
23.	D4	Product, delivery DDP, safety stock, FSC certification charge	4	Yes
24.	D5	Product, delivery DAP	2	Yes
25.	D6	No multiple services	0	No
26.	D7	No multiple services	0	No
27.	D8	Product, delivery, safety stock	3	Yes
28.	D9	Product, delivery incoterms	2	Yes
29.	D10	Product, delivery DDP	2	Yes

30.	E1	safety stock, product, delivery	3	Yes
31.	E2	Product, delivery FCA	2	Yes
32.	E3	Product and installation as a service	2	Yes
33.	E4	No multiple services	0	No
34.	F1	Product and delivery	2	Yes
35.	F2	Product and delivery	2	Yes
36.	F3	Product and delivery	2	Yes
37.	F4	Product and delivery	2	Yes
38.	F5	Product and delivery	2	Yes
39.	F6	Product and delivery	2	Yes
40.	F7	Product and delivery	2	Yes
41.	F8	Product and delivery	2	Yes
42.	F9	Product and delivery	2	Yes

Appendix IV

Table 3. List of distinct goods and services in the context of the contract

	Contract nr.	Q3. Are the goods or services distinct in the context of the contract?	Number of distinct good or services	Yes or No
1.	A1	Product and delivery	2	Yes
2.	A2	Product and delivery.	2	Yes
3.	A3	Product and delivery.	2	Yes
4.	A4	Product and delivery.	2	Yes
5.	A5	No multiple services	0	No
6.	A6	Product and delivery.	2	Yes
7.	A7	Product, delivery	2	Yes
8.	A8	Product and delivery.	2	Yes
9.	B1	Product, delivery	2	Yes
10.	B2	Products and delivery (Incoterms),	2	Yes
11.	B3	Products and delivery (Incoterms)	2	Yes
12.	B4	Products and delivery (Incoterms)	2	Yes
13.	B5	No multiple services	0	No
14.	B6	No multiple services	0	No
15.	B6	Products and delivery (Incoterms)	2	Yes
16.	C1	No multiple services	0	No
17.	C2	Product, delivery,	2	Yes
18.	C3	No multiple services	0	No
19.	C4	Product and delivery	2	Yes
20.	D1	Product, delivery	2	Yes
21.	D2	Product and delivery	2	Yes
22.	D3	Product and delivery DAP	2	Yes
23.	D4	Product, delivery DDP	2	Yes
24.	D5	Product, delivery DAP	2	Yes
25.	D6	No multiple services	0	No
26.	D7	No multiple services	0	No
27.	D8	Product, delivery,	2	Yes
28.	D9	Product, delivery incoterms	2	Yes
29.	D10	Product, delivery DDP	2	Yes
30.	E1	Product, delivery	2	Yes

31.	E2	Product, delivery FCA	2	Yes
32.	E3	Product and installation as a service	2	Yes
33.	E4	No multiple services	0	No
34.	F1	Product and delivery	2	Yes
35.	F2	Product and delivery	2	Yes
36.	F3	Product and delivery	2	Yes
37.	F4	Product and delivery	2	Yes
38.	F5	Product and delivery	2	Yes
39.	F6	Product and delivery	2	Yes
40.	F7	Product and delivery	2	Yes
41.	F8	Product and delivery	2	Yes
42.	F9	Product and delivery	2	Yes

Appendix V

Table 4. List of distinct goods and services in the context of the contract that are substantially the same

	Contract nr.	Q4. Are the promises in the contract a series of distinct goods or services that are substantially the same?	Number of distinct good or services	Yes or No
1.	A1	Product and delivery	2	No
2.	A2	Product and delivery.	2	No
3.	A3	Product and delivery.	2	No
4.	A4	Product and delivery.	2	No
5.	A5	No multiple services	0	-
6.	A6	Product and delivery.	2	No
7.	A7	Product, delivery	2	No
8.	A8	Product and delivery.	2	No
9.	B1	Product, delivery	2	No
10.	B2	Products and delivery (Incoterms),	2	No
11.	B3	Products and delivery (Incoterms)	2	No
12.	B4	Products and delivery (Incoterms)	2	No
13.	B5	No multiple services	0	-
14.	B6	No multiple services	0	-
15.	B6	Products and delivery (Incoterms)	2	No
16.	C1	No multiple services	0	-
17.	C2	Product, delivery,	2	No
18.	C3	No multiple services	0	-
19.	C4	Product and delivery	2	No
20.	D1	Product, delivery	2	No
21.	D2	Product and delivery	2	No
22.	D3	Product and delivery DAP	2	No
23.	D4	Product, delivery DDP	2	No
24.	D5	Product, delivery DAP	2	No
25.	D6	No multiple services	0	-
26.	D7	No multiple services	0	-
27.	D8	Product, delivery,	2	No
28.	D9	Product, delivery incoterms	2	No
29.	D10	Product, delivery DDP	2	No
30.	E1	Product, delivery	2	No

31.	E2	Product, delivery FCA	2	No
32.	E3	Product and installation as a service	2	No
33.	E4	No multiple services	0	-
34.	F1	Product and delivery	2	No
35.	F2	Product and delivery	2	No
36.	F3	Product and delivery	2	No
37.	F4	Product and delivery	2	No
38.	F5	Product and delivery	2	No
39.	F6	Product and delivery	2	No
40.	F7	Product and delivery	2	No
41.	F8	Product and delivery	2	No
42.	F9	Product and delivery	2	No